

Calcasieu Estuary Remedial Investigation/Feasibility Study (RI/FS): Baseline Ecological Risk Assessment (BERA)

Appendix B7: Whole-Sediment Toxicity Data, Pore-Water Toxicity Data, Benthic Invertebrate Community Structure Data

Prepared For:

CDM Federal Programs Corporation
8140 Walnut Hill Lane, Suite 1000
Dallas, Texas 75231

Under Contract To:

Mr. John Meyer, Regional Project Manager
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202

Prepared – October 2002 – By:

MacDonald Environmental Sciences Ltd.
#24 - 4800 Island Highway North
Nanaimo, British Columbia V9T 1W6

In Association With:

United States Geological Survey
4200 New Haven Road
Columbia, Missouri 65201

CONTRACT NO. 68-W5-0022
DOCUMENT CONTROL NO. 3282-941-RTZ-RISKZ-14858

Calcasieu Estuary Remedial Investigation/Feasibility Study (RI/FS): Baseline Ecological Risk Assessment (BERA)

Appendix B7: Whole-Sediment Toxicity Data, Pore-Water Toxicity Data, Benthic Invertebrate Community Structure Data

Prepared For:

CDM Federal Programs Corporation
8140 Walnut Hill Lane, Suite 1000
Dallas, Texas 75231

Under Contract To:

Mr. John Meyer, Regional Project Manager
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue
Dallas, Texas 75202

Prepared – October 2002 – By:

MacDonald Environmental Sciences Ltd.
#24 - 4800 Island Highway North
Nanaimo, British Columbia V9T 1W6

In Association With:

United States Geological Survey
4200 New Haven Road
Columbia, Missouri 65201

CONTRACT NO. 68-W5-0022
DOCUMENT CONTROL NO. 3282-941-RTZ-RISKZ-14858

List of Tables

Table B7-1	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Calcasieu River - Mainstem	T-1
Table B7-2	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Clooney Island Loop	T-7
Table B7-3	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Contraband Bayou	T-13
Table B7-4	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Coon Island Loop	T-19
Table B7-5	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Bayou Verdine	T-25
Table B7-6	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou Verdine	T-28
Table B7-7	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Bayou d'Inde	T-34
Table B7-8	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Middle Bayou d'Inde	T-37
Table B7-9	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Mainstem ..	T-43
Table B7-10	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh	T-46
Table B7-11	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from PPG Canal	T-55
Table B7-12	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Prien Lake and upper old river channel	T-58

Table B7-13	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Indian Wells Lagoon	T-61
Table B7-14	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Olsen	T-64
Table B7-15	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Moss Lake	T-70
Table B7-16	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Choupique	T-73
Table B7-17	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Grand Bayou	T-79
Table B7-18	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Bois Connine	T-82
Table B7-19	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Johnson Bayou	T-85
Table B7-20	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Willow Bayou	T-88
Table B7-21	Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Controls	T-91

Table B7-1. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Calcasieu River - Mainstem.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST001- NSD-010	00UC2-ST003- NSD-010	00UC2-ST004- NSD-010	00UC2-ST005- NSD-010
Microbial Community							
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	17 (NT)	0.4 (T)	2.8 (NT)	19 (NT)
Aquatic Plant Community							
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	88.6 (NT)	43.8 (T)	NR	89.2 (NT)
	96-h	Germling Cell Number	100% PW	11.34 (NT)	1.66 (NT)	NR	12.26 (NT)
	96-h	Germling Length (μm)	100% PW	77.47 (NT)	15.31 (T)	NR	75.75 (NT)
		Overall (Ge or G)	100% PW	NT	T	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	92.6 (NT)	86.4 (T)	NR	93.2 (NT)
	96-h	Germling Cell Number	50% PW	10.88 (NT)	8.32 (NT)	NR	11.18 (NT)
	96-h	Germling Length (μm)	50% PW	76.56 (NT)	60.94 (NT)	NR	70.68 (NT)
		Overall (Ge or G)	50% PW	NT	T	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	92.6 (NT)	93.8 (NT)	NR	92 (NT)
	96-h	Germling Cell Number	25% PW	8.16 (NT)	10.10 (NT)	NR	10.22 (NT)
	96-h	Germling Length (μm)	25% PW	68.55 (NT)	67.43 (NT)	NR	69.36 (NT)
		Overall (Ge or G)	25% PW	NT	NT	NR	NT
Benthic Invertebrate Community							
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	64 (NT)	71 (NT)	52 (T)	36 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	83 (NT)	90 (NT)	95 (NT)	70 (T)
	10-d	Growth (mm)	WS	2.43 (NT)	2.83 (NT)	2.58 (NT)	2.40 (NT)
		Overall (S or G)	WS	NT	NT	NT	T

Table B7-1. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Calcasieu River - Mainstem.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST001- NSD-010	00UC2-ST003- NSD-010	00UC2-ST004- NSD-010	00UC2-ST005- NSD-010
Benthic Invertebrate Community (cont.)							
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	78 (T)	95 (NT)	88 (NT)	60(T)
	28-d	Growth (mm)	WS	2.82 (T)	4.25 (NT)	3.35 (NT)	3.12 (T)
		Overall (S or G)	WS	T	NT	NT	T
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	95.8 (NT)	1.2 (T)	NR	60 (T)
	48-h	Development (%NP)	100% PW	50.2 (NT)	0.0 (NT)	NR	84.4 (NT)
		Overall (F or D)	100% PW	NT	T	NR	NT
	30-m	Fertilization (%EF)	50% PW	97 (NT)	24.4 (T)	NR	96.2 (NT)
	48-h	Development (%NP)	50% PW	87.6 (NT)	0.0 (T)	NR	84.2 (NT)
		Overall (F or D)	50% PW	NT	T	NR	NT
	30-m	Fertilization (%EF)	25% PW	97.4 (NT)	41.2 (T)	NR	96.4 (NT)
	48-h	Development (%NP)	25% PW	89.6 (NT)	0.0 (T)	NR	87.0 (NT)
		Overall (F or D)	25% PW	NT	T	NR	NT
<i>Community Structure</i>	LT	Normalized Index	WS	0.485	0.258	0.388	0.395
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	3.2	1.2	12.8	3.4
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0	0
	LT	Richness (# species/35.4 cm ²)	WS	9	1	6	5
	LT	Total Abundance (#/35.4 cm ²)	WS	4.8	1.2	13.4	4.6
		Overall	WS	NI	I	NI	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR	NR

Table B7-1. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Calcasieu River - Mainstem.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST001- NSD-010	00UC2-ST003- NSD-010	00UC2-ST004- NSD-010	00UC2-ST005- NSD-010
Fish Community							
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	8 (NT)	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	100% PW	0 (NT)	0 (NT)	NR	0 (NT)
		Overall (H or S)	100% PW	NT	NT	NR	NT
	24-h	Hatch/Survival (%)	50% PW	22 (NT)	40 (NT)	NR	48 (NT)
	48-h	Survival (%)	50% PW	6 (NT)	0 (NT)	NR	2 (NT)
		Overall (H or S)	50% PW	NT	NT	NR	NT
	24-h	Hatch/Survival (%)	25% PW	76 (NT)	74 (NT)	NR	86 (NT)
	48-h	Survival (%)	25% PW	48 (NT)	60 (NT)	NR	66 (NT)
		Overall (H or S)	25% PW	NT	NT	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-1. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Calcasieu River - Mainstem.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST013- NSD-010	00UC2-ST014- NSD-010	00UC2-ST030- NSD-010	00UC2-ST031- NSD-010
<i>Microbial Community</i>						
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	19 (NT)	7.9 (NT)	7.2 (NT)	6.7 (NT)
<i>Aquatic Plant Community</i>						
<i>Ulva fasciata</i>	96-h	Germination (%)	94 (NT)	NR	NR	NR
	96-h	Germling Cell Number	10.48 (NT)	NR	NR	NR
	96-h	Germling Length (μm)	70.47 (NT)	NR	NR	NR
		Overall (Ge or G)	NT	NR	NR	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	94.4 (NT)	NR	NR	NR
	96-h	Germling Cell Number	9.12 (NT)	NR	NR	NR
	96-h	Germling Length (μm)	68.55 (NT)	NR	NR	NR
		Overall (Ge or G)	NT	NR	NR	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	96 (NT)	NR	NR	NR
	96-h	Germling Cell Number	7.36 (NT)	NR	NR	NR
	96-h	Germling Length (μm)	67.13 (NT)	NR	NR	NR
		Overall (Ge or G)	NT	NR	NR	NR
<i>Benthic Invertebrate Community</i>						
<i>Ampelisca abdita</i>	10-d	Survival (%)	57 (T)	66 (NT)	75 (NT)	72 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	70 (T)	98 (NT)	90 (NT)	93 (NT)
	10-d	Growth (mm)	2.46 (NT)	2.98 (NT)	2.97 (NT)	3.34 (NT)
		Overall (S or G)	T	NT	NT	NT

Table B7-1. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Calcasieu River - Mainstem.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST013- NSD-010	00UC2-ST014- NSD-010	00UC2-ST030- NSD-010	00UC2-ST031- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	78 (T)	88 (NT)	100 (NT)	95 (NT)
	28-d	Growth (mm)	3.51 (NT)	4.02 (NT)	3.86 (NT)	4.64 (NT)
		Overall (S or G)	T	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	91.4 (NT)	NR	NR	NR
	48-h	Development (%NP)	0.0 (NT)	NR	NR	NR
		Overall (F or D)	NT	NR	NR	NR
	30-m	Fertilization (%EF)	93.4 (NT)	NR	NR	NR
	48-h	Development (%NP)	13.6 (NT)	NR	NR	NR
		Overall (F or D)	NT	NR	NR	NR
	30-m	Fertilization (%EF)	96.8 (NT)	NR	NR	NR
	48-h	Development (%NP)	82.6 (NT)	NR	NR	NR
		Overall (F or D)	NT	NR	NR	NR
<i>Community Structure</i>	LT	Normalized Index	0.663	0.77	0.395	0.345
	LT	Pollution Indicator Species (#/35.4 cm ²)	3.8	10	2.8	8
	LT	Pollution Sensitive Species (#/35.4 cm ²)	1.2	11.2	0	0
	LT	Richness (# species/35.4 cm ²)	7	20	6	4
	LT	Total Abundance (#/35.4 cm ²)	6.4	22.8	3.2	8.2
		Overall	NI	NI	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	NR	NR	NR	NR

Table B7-1. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Calcasieu River - Mainstem.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST013- NSD-010	00UC2-ST014- NSD-010	00UC2-ST030- NSD-010	00UC2-ST031- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	0 (NT)	NR	NR	NR
	48-h	Survival (%)	0 (NT)	NR	NR	NR
		Overall (H or S)	NT	NR	NR	NR
	24-h	Hatch/Survival (%)	82 (NT)	NR	NR	NR
	48-h	Survival (%)	36 (NT)	NR	NR	NR
		Overall (H or S)	NT	NR	NR	NR
	24-h	Hatch/Survival (%)	92 (NT)	NR	NR	NR
	48-h	Survival (%)	82 (NT)	NR	NR	NR
		Overall (H or S)	NT	NR	NR	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-2. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Clooney Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST007- NSD-010	00UC2-ST008- NSD-010	00UC2-ST010- NSD-010
<i>Microbial Community</i>						
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	18 (NT)	15 (NT)	5.9 (NT)
<i>Aquatic Plant Community</i>						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	89 (NT)	NR	NR
	96-h	Germling Cell Number	100% PW	9.30 (NT)	NR	NR
	96-h	Germling Length (μm)	100% PW	63.88 (NT)	NR	NR
		Overall (Ge or G)	100% PW	NT	NR	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	92.8 (NT)	NR	NR
	96-h	Germling Cell Number	50% PW	9.04 (NT)	NR	NR
	96-h	Germling Length (μm)	50% PW	63.98 (NT)	NR	NR
		Overall (Ge or G)	50% PW	NT	NR	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	93.6 (NT)	NR	NR
	96-h	Germling Cell Number	25% PW	6.62 (NT)	NR	NR
	96-h	Germling Length (μm)	25% PW	58.61 (NT)	NR	NR
		Overall (Ge or G)	25% PW	NT	NR	NR
<i>Benthic Invertebrate Community</i>						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	31 (T)	45 (T)	53 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	80 (NT)	80 (NT)	75 (NT)
	10-d	Growth (mm)	WS	2.55 (NT)	2.51 (NT)	2.53 (NT)
		Overall (S or G)	WS	NT	NT	NT

Table B7-2. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Clooney Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST007- NSD-010	00UC2-ST008- NSD-010	00UC2-ST010- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	85 (NT)	90 (NT)	93 (NT)
	28-d	Growth (mm)	WS	3.73 (NT)	3.54 (NT)	3.36 (NT)
		Overall (S or G)	WS	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	89.4 (NT)	NR	NR
		Development (%NP)	100% PW	0.0 (NT)	NR	NR
		Overall (F or D)	100% PW	NT	NR	NR
	48-h	Fertilization (%EF)	50% PW	95.8 (NT)	NR	NR
		Development (%NP)	50% PW	0.0 (T)	NR	NR
		Overall (F or D)	50% PW	T	NR	NR
	30-m	Fertilization (%EF)	25% PW	96.4 (NT)	NR	NR
		Development (%NP)	25% PW	85.8 (NT)	NR	NR
		Overall (F or D)	25% PW	NT	NR	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.385	0.398	0.695
		Pollution Indicator Species (#/35.4 cm ²)	WS	2.2	2	6.2
		Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0.6
		Richness (# species/35.4 cm ²)	WS	5	6	9
		Total Abundance (#/35.4 cm ²)	WS	2.4	2.4	10.6
		Overall	WS	I	I	NI
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR

Table B7-2. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Clooney Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST007- NSD-010	00UC2-ST008- NSD-010	00UC2-ST010- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	0 (NT)	NR	NR
	48-h	Survival (%)	100% PW	0 (NT)	NR	NR
		Overall (H or S)	100% PW	NT	NR	NR
	24-h	Hatch/Survival (%)	50% PW	0 (NT)	NR	NR
	48-h	Survival (%)	50% PW	0 (NT)	NR	NR
		Overall (H or S)	50% PW	NT	NR	NR
	24-h	Hatch/Survival (%)	25% PW	80 (NT)	NR	NR
	48-h	Survival (%)	25% PW	72 (NT)	NR	NR
		Overall (H or S)	25% PW	NT	NR	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-2. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Clooney Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST011- NSD-010	00UC2-ST012- NSD-010	00UC2-ST037- NSD-010
Microbial Community					
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	11 (NT)	0.18 (T)	1.6 (NT)
Aquatic Plant Community					
<i>Ulva fasciata</i>	96-h	Germination (%)	89.4 (NT)	NR	91.8 (NT)
	96-h	Germling Cell Number	5.32 (NT)	NR	11.74 (NT)
	96-h	Germling Length (μm)	44.82 (NT)	NR	76.15 (NT)
		Overall (Ge or G)	NT	NR	NT
	96-h	Germination (%)	93.2 (NT)	NR	95.2 (NT)
	96-h	Germling Cell Number	4.88 (NT)	NR	11.10 (NT)
	96-h	Germling Length (μm)	41.98 (NT)	NR	79.29 (NT)
		Overall (Ge or G)	NT	NR	NT
	96-h	Germination (%)	94.6 (NT)	NR	93.8 (NT)
	96-h	Germling Cell Number	3.70 (NT)	NR	7.74 (NT)
	96-h	Germling Length (μm)	36.91 (NT)	NR	66.52 (NT)
		Overall (Ge or G)	NT	NR	NT
Benthic Invertebrate Community					
<i>Ampelisca abdita</i>	10-d	Survival (%)	52 (T)	28 (T)	38 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	96 (NT)	73 (NT)	90 (NT)
	10-d	Growth (mm)	2.26 (T)	2.27 (NT)	2.38 (NT)
		Overall (S or G)	T	NT	NT

Table B7-2. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Clooney Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST011- NSD-010	00UC2-ST012- NSD-010	00UC2-ST037- NSD-010
Benthic Invertebrate Community (cont.)					
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	78 (T)	53 (T)	78 (T)
	28-d	Growth (mm)	3.38 (NT)	3.45 (NT)	3.48 (NT)
		Overall (S or G)	T	T	T
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	88.2 (NT)	NR	96.2 (NT)
	48-h	Development (%NP)	85.4 (NT)	NR	79.2 (NT)
		Overall (F or D)	NT	NR	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	91 (NT)	NR	99 (NT)
	48-h	Development (%NP)	86.4 (NT)	NR	85.2 (NT)
		Overall (F or D)	NT	NR	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	92.4 (T)	NR	96.4 (NT)
	48-h	Development (%NP)	85.6 (NT)	NR	87.2 (NT)
		Overall (F or D)	T	NR	NT
<i>Community Structure</i>	LT	Normalized Index	0.43	0.408	0.763
	LT	Pollution Indicator Species (#/35.4 cm ²)	13	12.8	8
	LT	Pollution Sensitive Species (#/35.4 cm ²)	0	0	5.8
	LT	Richness (# species/35.4 cm ²)	8	7	15
	LT	Total Abundance (#/35.4 cm ²)	14.2	13.4	15.2
		Overall	NI	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	93 (NT)	NR	NR

Table B7-2. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Clooney Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST011- NSD-010	00UC2-ST012- NSD-010	00UC2-ST037- NSD-010
Fish Community					
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	0 (NT)	NR	76 (NT)
	48-h	Survival (%)	0 (NT)	NR	36 (NT)
		Overall (H or S)	NT	NR	NT
	24-h	Hatch/Survival (%)	68 (NT)	NR	90 (NT)
	48-h	Survival (%)	10 (NT)	NR	60 (NT)
		Overall (H or S)	NT	NR	NT
	24-h	Hatch/Survival (%)	98 (NT)	NR	94 (NT)
	48-h	Survival (%)	86 (NT)	NR	56 (NT)
		Overall (H or S)	NT	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-3. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Contraband Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST015- NSD-010	00UC2-ST016- NSD-010	00UC2-ST017- NSD-010
Microbial Community						
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	16 (NT)	24 (NT)	13 (NT)
Aquatic Plant Community						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	90.2 (NT)	NR	50.6 (T)
	96-h	Germling Cell Number	100% PW	9.46 (NT)	NR	3.96 (NT)
	96-h	Germling Length (µm)	100% PW	66.21 (NT)	NR	32.14 (NT)
		Overall (Ge or G)	100% PW	NT	NR	T
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	96 (NT)	NR	84.4 (T)
	96-h	Germling Cell Number	50% PW	9.64 (NT)	NR	10.84 (NT)
	96-h	Germling Length (µm)	50% PW	73.52 (NT)	NR	75.04 (NT)
		Overall (Ge or G)	50% PW	NT	NR	T
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	96 (NT)	NR	91.8 (T)
	96-h	Germling Cell Number	25% PW	7.48 (NT)	NR	11.28 (NT)
	96-h	Germling Length (µm)	25% PW	69.66 (NT)	NR	80.11 (NT)
		Overall (Ge or G)	25% PW	NT	NR	T
Benthic Invertebrate Community						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	75 (NT)	70 (NT)	65 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	90 (NT)	98 (NT)	95 (NT)
	10-d	Growth (mm)	WS	3.30 (NT)	3.20 (NT)	2.44 (NT)
		Overall (S or G)	WS	NT	NT	NT

Table B7-3. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Contraband Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST015- NSD-010	00UC2-ST016- NSD-010	00UC2-ST017- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	95 (NT)	100 (NT)	85 (NT)
	28-d	Growth (mm)	WS	3.53 (NT)	4.53 (NT)	3.71 (NT)
		Overall (S or G)	WS	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	46 (NT)	NR	18.4 (NT)
	48-h	Development (%NP)	100% PW	0.0 (NT)	NR	0.0 (NT)
		Overall (F or D)	100% PW	NT	NR	NT
	30-m	Fertilization (%EF)	50% PW	83 (NT)	NR	40.4 (T)
	48-h	Development (%NP)	50% PW	1.6 (NT)	NR	0.0 (T)
		Overall (F or D)	50% PW	NT	NR	T
	30-m	Fertilization (%EF)	25% PW	95.8 (NT)	NR	52 (T)
	48-h	Development (%NP)	25% PW	86.8 (NT)	NR	0.2 (T)
		Overall (F or D)	25% PW	NT	NR	T
<i>Community Structure</i>	LT	Normalized Index	WS	0.248	0.248	0.295
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	6	0.8	0.6
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0
	LT	Richness (# species/35.4 cm ²)	WS	1	1	2
	LT	Total Abundance (#/35.4 cm ²)	WS	6	0.8	0.6
		Overall	WS	I	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR

Table B7-3. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Contraband Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST015- NSD-010	00UC2-ST016- NSD-010	00UC2-ST017- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	100% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	100% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	50% PW	10 (NT)	NR	0 (NT)
	48-h	Survival (%)	50% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	50% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	25% PW	78 (NT)	NR	38 (NT)
	48-h	Survival (%)	25% PW	58 (NT)	NR	20 (NT)
		Overall (H or S)	25% PW	NT	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-3. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Contraband Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST018- NSD-010	00UC2-ST019- NSD-010	00UC2-ST020- NSD-010
<i>Microbial Community</i>					
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	13 (NT)	33 (NT)	17 (NT)
<i>Aquatic Plant Community</i>					
<i>Ulva fasciata</i>	96-h	Germination (%)	NR	92.8 (NT)	NR
	96-h	Germling Cell Number	NR	11.64 (NT)	NR
	96-h	Germling Length (μm)	NR	77.27 (NT)	NR
		Overall (Ge or G)	NR	NT	NR
	96-h	Germination (%)	NR	95.6 (NT)	NR
	96-h	Germling Cell Number	NR	11.98 (NT)	NR
	96-h	Germling Length (μm)	NR	80.92 (NT)	NR
		Overall (Ge or G)	NR	NT	NR
	96-h	Germination (%)	NR	93.4 (NT)	NR
	96-h	Germling Cell Number	NR	11.88 (NT)	NR
	96-h	Germling Length (μm)	NR	83.45 (NT)	NR
		Overall (Ge or G)	NR	NT	NR
<i>Benthic Invertebrate Community</i>					
<i>Ampelisca abdita</i>	10-d	Survival (%)	65 (NT)	66 (NT)	63 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	73 (NT)	88 (NT)	95 (NT)
	10-d	Growth (mm)	2.55 (NT)	3.27 (NT)	2.80 (NT)
	10-d	Overall (S or G)	NT	NT	NT

Table B7-3. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Contraband Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST018- NSD-010	00UC2-ST019- NSD-010	00UC2-ST020- NSD-010
Benthic Invertebrate Community (cont.)					
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	93 (NT)	95 (NT)	98 (NT)
	28-d	Growth (mm)	3.71 (NT)	4.47 (NT)	3.90 (NT)
	28-d	Overall (S or G)	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	NR	88.8 (NT)	NR
	48-h	Development (%NP)	NR	0.0 (NT)	NR
		Overall (F or D)	NR	NT	NR
	30-m	Fertilization (%EF)	NR	98 (NT)	NR
	48-h	Development (%NP)	NR	7.2 (NT)	NR
		Overall (F or D)	NR	NT	NR
	30-m	Fertilization (%EF)	NR	97.4 (NT)	NR
	48-h	Development (%NP)	NR	89.8 (NT)	NR
		Overall (F or D)	NR	NT	NR
<i>Community Structure</i>	LT	Normalized Index	0.345	0.31	0.368
	LT	Pollution Indicator Species (#/35.4 cm ²)	4.6	1.2	2
	LT	Pollution Sensitive Species (#/35.4 cm ²)	0	0	0
	LT	Richness (# species/35.4 cm ²)	4	2	4
	LT	Total Abundance (#/35.4 cm ²)	4.6	1.2	2.8
		Overall	NI	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	NR	NR	NR

Table B7-3. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Contraband Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST018- NSD-010	00UC2-ST019- NSD-010	00UC2-ST020- NSD-010
Fish Community					
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	NR	20 (NT)	NR
	48-h	Survival (%)	NR	0 (NT)	NR
		Overall (H or S)	NR	NT	NR
	24-h	Hatch/Survival (%)	NR	82 (NT)	NR
	48-h	Survival (%)	NR	30 (NT)	NR
		Overall (H or S)	NR	NT	NR
	24-h	Hatch/Survival (%)	NR	98 (NT)	NR
	48-h	Survival (%)	NR	94 (NT)	NR
		Overall (H or S)	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-4. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Coon Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST021- NSD-010	00UC2-ST022- NSD-010	00UC2-ST023- NSD-010	00UC2-ST024- NSD-010
<i>Microbial Community</i>							
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	0.24 (T)	2.3 (NT)	20 (NT)	29 (NT)
<i>Aquatic Plant Community</i>							
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	48.8 (T)	NR	93 (NT)	NR
	96-h	Germling Cell Number	100% PW	1.02 (T)	NR	10.26 (NT)	NR
	96-h	Germling Length (μm)	100% PW	9.38 (T)	NR	70.02 (NT)	NR
		Overall (Ge or G)	100% PW	T	NR	NT	NR
	96-h	Germination (%)	50% PW	81.2 (T)	NR	94.8 (NT)	NR
	96-h	Germling Cell Number	50% PW	1.90 (NT)	NR	10.38 (NT)	NR
	96-h	Germling Length (μm)	50% PW	18.66 (T)	NR	72.15 (NT)	NR
		Overall (Ge or G)	50% PW	T	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	91.2 (T)	NR	95.6 (NT)	NR
	96-h	Germling Cell Number	25% PW	2.22 (NT)	NR	10.18 (NT)	NR
	96-h	Germling Length (μm)	25% PW	20.99 (T)	NR	71.69 (NT)	NR
		Overall (Ge or G)	25% PW	T	NR	NT	NR
	96-h	Germination (%)	50% PW	81.2 (T)	NR	94.8 (NT)	NR
	96-h	Germling Cell Number	50% PW	1.90 (NT)	NR	10.38 (NT)	NR
	96-h	Germling Length (μm)	50% PW	18.66 (T)	NR	72.15 (NT)	NR
		Overall (Ge or G)	50% PW	T	NR	NT	NR
<i>Benthic Invertebrate Community</i>							
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	54 (T)	26 (T)	69 (NT)	71 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	90 (NT)	20 (T)	98 (NT)	100 (NT)
	10-d	Growth (mm)	WS	2.34 (NT)	2.37 (NT)	3.30 (NT)	2.74 (NT)
		Overall (S or G)	WS	NT	T	NT	NT

Table B7-4. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Coon Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST021- NSD-010	00UC2-ST022- NSD-010	00UC2-ST023- NSD-010	00UC2-ST024- NSD-010
Benthic Invertebrate Community (cont.)							
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	73 (T)	35 (T)	93 (NT)	93 (NT)
	28-d	Growth (mm)	WS	3.27 (NT)	4.47 (NT)	5.03 (NT)	4.24 (NT)
		Overall (S or G)	WS	T	T	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	43.8 (NT)	NR	51.8 (NT)	93 (NT)
		Development (%NP)	100% PW	0.0 (NT)	NR	0.0 (NT)	NR
		Overall (F or D)	100% PW	NT	NR	NT	NR
	48-h	Fertilization (%EF)	50% PW	89.8 (NT)	NR	87.8 (NT)	NR
		Development (%NP)	50% PW	81.6 (NT)	NR	85.4 (NT)	NR
		Overall (F or D)	50% PW	NT	NR	NT	NR
	30-m	Fertilization (%EF)	25% PW	94.2 (NT)	NR	96 (NT)	NR
		Development (%NP)	25% PW	85.6 (NT)	NR	84.2 (NT)	NR
		Overall (F or D)	25% PW	NT	NR	NT	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.633	0.353	0.463	0.665
		Pollution Indicator Species (#/35.4 cm ²)	WS	11.2	6	6.2	3.8
		Pollution Sensitive Species (#/35.4 cm ²)	WS	0.6	0	0	1
		Richness (# species/35.4 cm ²)	WS	8	4	9	8
		Total Abundance (#/35.4 cm ²)	WS	12.4	6.2	6.8	5
		Overall	WS	NI	NI	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR	NR

Table B7-4. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Coon Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00UC2-ST021- NSD-010	00UC2-ST022- NSD-010	00UC2-ST023- NSD-010	00UC2-ST024- NSD-010
Fish Community							
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	2 (NT)	NR	0 (NT)	NR
	48-h	Survival (%)	100% PW	0 (NT)	NR	0 (NT)	NR
		Overall (H or S)	100% PW	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	50% PW	60 (NT)	NR	2 (NT)	NR
	48-h	Survival (%)	50% PW	2 (NT)	NR	0 (NT)	NR
		Overall (H or S)	50% PW	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	25% PW	86 (NT)	NR	92 (NT)	NR
	48-h	Survival (%)	25% PW	80 (NT)	NR	70 (NT)	NR
		Overall (H or S)	25% PW	NT	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-4. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Coon Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST025- NSD-010	00UC2-ST026- NSD-010	00UC2-ST027- NSD-010	00UC2-ST028- NSD-010	00UC2-ST029- NSD-010
Microbial Community							
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	2.9 (NT)	18 (NT)	24 (NT)	1.6 (NT)	3.7 (NT)
Aquatic Plant Community							
<i>Ulva fasciata</i>	96-h	Germination (%)	85.2 (NT)	NR	91.6 (NT)	NR	87.6 (NT)
	96-h	Germling Cell Number	7.22 (NT)	NR	8.76 (NT)	NR	9.78 (NT)
	96-h	Germling Length (μm)	58.81 (NT)	NR	64.79 (NT)	NR	65.71 (NT)
		Overall (Ge or G)	NT	NR	NT	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	90.6 (T)	NR	91.4 (NT)	NR	88.2 (T)
	96-h	Germling Cell Number	7.34 (NT)	NR	9.58 (NT)	NR	11.44 (NT)
	96-h	Germling Length (μm)	60.43 (NT)	NR	68.85 (NT)	NR	73.72 (NT)
		Overall (Ge or G)	T	NR	NT	NR	T
<i>Ulva fasciata</i>	96-h	Germination (%)	88.6 (T)	NR	93.8 (NT)	NR	92.8 (NT)
	96-h	Germling Cell Number	6.20 (NT)	NR	8.48 (NT)	NR	11.32 (NT)
	96-h	Germling Length (μm)	57.29 (NT)	NR	68.65 (NT)	NR	76.96 (NT)
		Overall (Ge or G)	T	NR	NT	NR	NT
Benthic Invertebrate Community							
<i>Ampelisca abdita</i>	10-d	Survival (%)	47 (T)	60 (T)	57 (T)	0 (T)	37 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	83 (NT)	68 (T)	65 (T)	20 (T)	93 (NT)
	10-d	Growth (mm)	2.49 (NT)	2.58 (NT)	2.56 (NT)	2.37 (NT)	2.66 (NT)
		Overall (S or G)	NT	T	T	T	NT

Table B7-4. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Coon Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST025- NSD-010	00UC2-ST026- NSD-010	00UC2-ST027- NSD-010	00UC2-ST028- NSD-010	00UC2-ST029- NSD-010
Benthic Invertebrate Community (cont.)							
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	90 (NT)	90 (NT)	93 (NT)	10 (T)	90 (NT)
	28-d	Growth (mm)	3.64 (NT)	3.56 (NT)	4.63 (NT)	4.11 (NT)	4.64 (NT)
		Overall (S or G)	NT	NT	NT	T	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	82.8 (NT)	NR	92.8 (NT)	NR	77.8 (NT)
		Development (%NP)	0.0 (NT)	NR	8.8 (NT)	NR	0.0 (NT)
		Overall (F or D)	NT	NR	NT	NR	NT
	48-h	Fertilization (%EF)	96.8 (NT)	NR	95.6 (NT)	NR	91.8 (NT)
		Development (%NP)	86.2 (NT)	NR	87.4 (NT)	NR	44.6 (NT)
		Overall (F or D)	NT	NR	NT	NR	NT
	30-m	Fertilization (%EF)	98.2 (NT)	NR	97.8 (NT)	NR	96.2 (NT)
		Development (%NP)	85.8 (NT)	NR	85.0 (NT)	NR	87.6 (NT)
		Overall (F or D)	NT	NR	NT	NR	NT
<i>Community Structure</i>	LT	Normalized Index	0.808	0.668	0.583	0.243	0.418
		Pollution Indicator Species (#/35.4 cm ²)	2.4	9	8.4	0.6	1.6
		Pollution Sensitive Species (#/35.4 cm ²)	5	1.8	0.2	0	0
		Richness (# species/35.4 cm ²)	13	8	7	1	6
		Total Abundance (#/35.4 cm ²)	8.8	11.2	9.4	0.6	2.4
		Overall	NI	NI	NI	NI	NI
	Nereis virens	Survival (%)	NR	NR	NR	98 (NT)	NR

Table B7-4. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Coon Island Loop.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00UC2-ST025- NSD-010	00UC2-ST026- NSD-010	00UC2-ST027- NSD-010	00UC2-ST028- NSD-010	00UC2-ST029- NSD-010
Fish Community							
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	2 (NT)	NR	0 (NT)	NR	62 (NT)
	48-h	Survival (%)	0 (NT)	NR	0 (NT)	NR	0 (NT)
		Overall (H or S)	NT	NR	NT	NR	NT
	24-h	Hatch/Survival (%)	88 (NT)	NR	30 (NT)	NR	84 (NT)
	48-h	Survival (%)	60 (NT)	NR	10 (NT)	NR	56 (NT)
		Overall (H or S)	NT	NR	NT	NR	NT
	24-h	Hatch/Survival (%)	96 (NT)	NR	82 (NT)	NR	92 (NT)
	48-h	Survival (%)	84 (NT)	NR	66.8 (NT)	NR	66 (NT)
		Overall (H or S)	NT	NR	NT	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-5. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Bayou Verdine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BV2-ST007- NSD-010	00BV2-ST008- NSD-010	00BV2-ST009- NSD-010	00BV2-ST010- NSD-010
<i>Microbial Community</i>							
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	16 (NT)	0.70 (T)	0.90 (T)	3.1 (NT)
<i>Aquatic Plant Community</i>							
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	NR	97 (NT)	NR	93.8 (NT)
	96-h	Germling Cell Number	100% PW	NR	6.66 (NT)	NR	3.08 (NT)
	96-h	Germling Length (μm)	100% PW	NR	59.52 (NT)	NR	34.88 (NT)
		Overall (Ge or G)	100% PW	NR	NT	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	NR	98 (NT)	NR	96.2 (NT)
	96-h	Germling Cell Number	50% PW	NR	5.94 (NT)	NR	2.94 (NT)
	96-h	Germling Length (μm)	50% PW	NR	54.65 (NT)	NR	32.65 (NT)
		Overall (Ge or G)	50% PW	NR	NT	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	NR	95.6 (NT)	NR	96.8 (NT)
	96-h	Germling Cell Number	25% PW	NR	5.50 (NT)	NR	2.78 (NT)
	96-h	Germling Length (μm)	25% PW	NR	48.67 (NT)	NR	30.52 (T)
		Overall (Ge or G)	25% PW	NR	NT	NR	T
<i>Benthic Invertebrate Community</i>							
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	58 (T)	0 (T)	63 (NT)	61 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	95 (NT)	93 (NT)	100 (NT)	100 (NT)
	10-d	Growth (mm)	WS	3.05 (NT)	2.68 (NT)	3.06 (NT)	2.77 (NT)
		Overall (S or G)	WS	NT	NT	NT	NT

Table B7-5. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Bayou Verdine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BV2-ST007- NSD-010	00BV2-ST008- NSD-010	00BV2-ST009- NSD-010	00BV2-ST010- NSD-010
Benthic Invertebrate Community (cont.)							
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	95 (NT)	88 (NT)	93 (NT)	100 (NT)
	28-d	Growth (mm)	WS	3.48 (NT)	4.38 (NT)	4.19 (NT)	3.55 (NT)
		Overall (S or G)	WS	NT	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	NR	89.4 (NT)	NR	100 (NT)
		Development (%NP)	100% PW	NR	0.0 (NT)	NR	76.2 (NT)
		Overall (F or D)	100% PW	NR	NT	NR	NT
	48-h	Fertilization (%EF)	50% PW	NR	93 (NT)	NR	95 (NT)
		Development (%NP)	50% PW	NR	82.4 (NT)	NR	79.8 (NT)
		Overall (F or D)	50% PW	NR	NT	NR	NT
	30-m	Fertilization (%EF)	25% PW	NR	88.6 (T)	NR	96.2 (NT)
		Development (%NP)	25% PW	NR	85.6 (NT)	NR	83.2 (NT)
		Overall (F or D)	25% PW	NR	T	NR	NT
<i>Community Structure</i>	LT	Normalized Index	WS	0.46	0.325	0.685	0.355
		Pollution Indicator Species (#/35.4 cm ²)	WS	7	4.4	10.8	5.8
		Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0.8	0
		Richness (# species/35.4 cm ²)	WS	9	3	10	4
		Total Abundance (#/35.4 cm ²)	WS	8	4.8	13	6
		Overall	WS	NI	I	NI	I
	Nereis virens	Survival (%)	WS	NR	NR	NR	NR

Table B7-5. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Bayou Verdine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BV2-ST007- NSD-010	00BV2-ST008- NSD-010	00BV2-ST009- NSD-010	00BV2-ST010- NSD-010
Fish Community							
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	NR	24 (NT)	NR	90 (NT)
	48-h	Survival (%)	100% PW	NR	0 (NT)	NR	88 (NT)
		Overall (H or S)	100% PW	NR	NT	NR	NT
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	50% PW	NR	75 (NT)	NR	96 (NT)
	48-h	Survival (%)	50% PW	NR	66 (NT)	NR	96 (NT)
		Overall (H or S)	50% PW	NR	NT	NR	NT
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	25% PW	NR	82 (NT)	NR	94 (NT)
	48-h	Survival (%)	25% PW	NR	62 (NT)	NR	92 (NT)
		Overall (H or S)	25% PW	NR	NT	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-6. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou Verdine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BV2-ST001- NSD-010	00BV2-ST002- NSD-010	00BV2-ST003- NSD-010
Microbial Community						
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	1.6 (NT)	1.3 (T)	0.61 (T)
Aquatic Plant Community						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	NR	96 (NT)	NR
	96-h	Germling Cell Number	100% PW	NR	7.94 (NT)	NR
	96-h	Germling Length (μm)	100% PW	NR	59.27 (NT)	NR
		Overall (Ge or G)	100% PW	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	NR	95.6 (NT)	NR
	96-h	Germling Cell Number	50% PW	NR	10.04 (NT)	NR
	96-h	Germling Length (μm)	50% PW	NR	64.85 (NT)	NR
		Overall (Ge or G)	50% PW	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	NR	96.2 (NT)	NR
	96-h	Germling Cell Number	25% PW	NR	9.42 (NT)	NR
	96-h	Germling Length (μm)	25% PW	NR	63.98 (NT)	NR
		Overall (Ge or G)	25% PW	NR	NT	NR
Benthic Invertebrate Community						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	0 (T)	0 (T)	0 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	85 (NT)	83 (NT)	10 (T)
	10-d	Growth (mm)	WS	2.65 (NT)	2.03 (T)	2.09 (T)
		Overall (S or G)	WS	NT	T	T

Table B7-6. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou Verdine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BV2-ST001- NSD-010	00BV2-ST002- NSD-010	00BV2-ST003- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	90 (NT)	48 (T)	15 (T)
	28-d	Growth (mm)	WS	3.42 (NT)	3.52 (NT)	3.52 (NT)
		Overall (S or G)	WS	NT	T	T
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	NR	88.6 (NT)	NR
	48-h	Development (%NP)	100% PW	NR	0.0 (NT)	NR
		Overall (F or D)	100% PW	NR	NT	NR
	30-m	Fertilization (%EF)	50% PW	NR	97.2 (NT)	NR
	48-h	Development (%NP)	50% PW	NR	0.0 (T)	NR
		Overall (F or D)	50% PW	NR	T	NR
	30-m	Fertilization (%EF)	25% PW	NR	96.2 (NT)	NR
	48-h	Development (%NP)	25% PW	NR	86.4 (NT)	NR
		Overall (F or D)	25% PW	NR	NT	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.633	0.433	0.335
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	9.8	6.6	6
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0.6	0	0
	LT	Richness (# species/35.4 cm ²)	WS	8	8	3
	LT	Total Abundance (#/35.4 cm ²)	WS	10.6	7.6	6.8
		Overall	WS	NI	NI	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR

Table B7-6. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou Verdine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BV2-ST001- NSD-010	00BV2-ST002- NSD-010	00BV2-ST003- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	NR	0 (NT)	NR
	48-h	Survival (%)	100% PW	NR	0 (NT)	NR
		Overall (H or S)	100% PW	NR	NT	NR
	24-h	Hatch/Survival (%)	50% PW	NR	80 (NT)	NR
	48-h	Survival (%)	50% PW	NR	44 (NT)	NR
		Overall (H or S)	50% PW	NR	NT	NR
	24-h	Hatch/Survival (%)	25% PW	NR	84 (NT)	NR
	48-h	Survival (%)	25% PW	NR	28 (NT)	NR
		Overall (H or S)	25% PW	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized; %NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-6. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou Verdine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BV2-ST004- NSD-010	00BV2-ST005- NSD-010	00BV2-ST006- NSD-010
<i>Microbial Community</i>					
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	0.15 (T)	0.31 (T)	1.1 (T)
<i>Aquatic Plant Community</i>					
<i>Ulva fasciata</i>	96-h	Germination (%)	78.6 (NT)	NR	94.8 (NT)
	96-h	Germling Cell Number	2.92 (NT)	NR	8.26 (NT)
	96-h	Germling Length (μm)	29.00 (NT)	NR	63.22 (NT)
		Overall (Ge or G)	NT	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	90 (T)	NR	96.4 (NT)
	96-h	Germling Cell Number	2.98 (NT)	NR	8.14 (NT)
	96-h	Germling Length (μm)	37.42 (NT)	NR	62.26 (NT)
		Overall (Ge or G)	T	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	94.4 (NT)	NR	96 (NT)
	96-h	Germling Cell Number	3.12 (NT)	NR	6.42 (NT)
	96-h	Germling Length (μm)	37.47 (NT)	NR	56.18 (NT)
		Overall (Ge or G)	NT	NR	NT
<i>Benthic Invertebrate Community</i>					
<i>Ampelisca abdita</i>	10-d	Survival (%)	0 (T)	0 (T)	2 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	15 (T)	65 (T)	90 (NT)
	10-d	Growth (mm)	2.11 (T)	2.16 (T)	2.32 (NT)
		Overall (S or G)	T	T	NT

Table B7-6. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou Verdine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BV2-ST004- NSD-010	00BV2-ST005- NSD-010	00BV2-ST006- NSD-010
Benthic Invertebrate Community (cont.)					
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	20 (T)	85 (NT)	88 (NT)
	28-d	Growth (mm)	2.94 (T)	3.39 (NT)	4.16 (NT)
		Overall (S or G)	T	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	1.8 (T)	NR	81.8 (NT)
	48-h	Development (%NP)	0.0 (NT)	NR	0.0 (NT)
		Overall (F or D)	T	NR	NT
	30-m	Fertilization (%EF)	73.8 (T)	NR	93.6 (NT)
	48-h	Development (%NP)	0.0 (T)	NR	0.0 (T)
		Overall (F or D)	T	NR	T
	30-m	Fertilization (%EF)	92.8 (NT)	NR	97.8 (NT)
	48-h	Development (%NP)	74.6 (T)	NR	63.2 (T)
		Overall (F or D)	T	NR	T
<i>Community Structure</i>	LT	Normalized Index	0.325	0.325	0.558
	LT	Pollution Indicator Species (#/35.4 cm ²)	0.4	2	3.4
	LT	Pollution Sensitive Species (#/35.4 cm ²)	0	0	0.2
	LT	Richness (# species/35.4 cm ²)	2	3	5
	LT	Total Abundance (#/35.4 cm ²)	0.6	2.2	3.8
		Overall	I	I	NI
<i>Nereis virens</i>	28-d	Survival (%)	NR	97 (NT)	NR

Table B7-6. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou Verdine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BV2-ST004- NSD-010	00BV2-ST005- NSD-010	00BV2-ST006- NSD-010
Fish Community					
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	0 (NT)	NR	0 (NT)
		Overall (H or S)	NT	NR	NT
	24-h	Hatch/Survival (%)	58 (NT)	NR	36 (NT)
	48-h	Survival (%)	28 (NT)	NR	20 (NT)
		Overall (H or S)	NT	NR	NT
	24-h	Hatch/Survival (%)	84 (NT)	NR	60 (NT)
	48-h	Survival (%)	52 (NT)	NR	44 (NT)
		Overall (H or S)	NT	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized; %NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-7. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Bayou d'Inde.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST001- NSD-010	00BI2-ST002- NSD-010	00BI2-ST003- NSD-010	00BI2-ST004- NSD-010	00BI2-ST005- NSD2-010
Microbial Community								
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	0.64 (T)	2.1 (NT)	0.26 (T)	4.3 (NT)	0.44 (T)
Aquatic Plant Community								
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	NR	51.4 (T)	NR	76.6 (NT)	NR
	96-h	Germling Cell Number	100% PW	NR	1.44 (NT)	NR	4.26 (NT)	NR
	96-h	Germling Length (μm)	100% PW	NR	12.73 (T)	NR	32.90 (NT)	NR
		Overall (Ge or G)	100% PW	NR	T	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	NR	95.2 (NT)	NR	94 (NT)	NR
	96-h	Germling Cell Number	50% PW	NR	6.60 (NT)	NR	8.58 (NT)	NR
	96-h	Germling Length (μm)	50% PW	NR	47.35 (NT)	NR	57.29 (NT)	NR
		Overall (Ge or G)	50% PW	NR	NT	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	NR	96.8 (NT)	NR	95.2 (NT)	NR
	96-h	Germling Cell Number	25% PW	NR	9.40 (NT)	NR	6.98 (NT)	NR
	96-h	Germling Length (μm)	25% PW	NR	66.06 (NT)	NR	57.29 (NT)	NR
		Overall (Ge or G)	25% PW	NR	NT	NR	NT	NR
Benthic Invertebrate Community								
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	51 (T)	45 (T)	21 (T)	51 (T)	35 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	90 (NT)	85 (NT)	88 (NT)	70 (T)	78 (NT)
	10-d	Growth (mm)	WS	2.36 (NT)	3.08 (NT)	2.31 (NT)	2.59 (NT)	2.74 (NT)
		Overall (S or G)	WS	NT	NT	NT	T	NT

Table B7-7. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Bayou d'Inde.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST001- NSD-010	00BI2-ST002- NSD-010	00BI2-ST003- NSD-010	00BI2-ST004- NSD-010	00BI2-ST005- NSD2-010
Benthic Invertebrate Community (cont.)								
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	93 (NT)	85 (NT)	78 (T)	90 (NT)	76 (T)
	28-d	Growth (mm)	WS	4.18 (NT)	5.10 (NT)	4.61 (NT)	3.32 (NT)	4.19 (NT)
		Overall (S or G)	WS	NT	NT	T	NT	T
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	NR	37.8 (NT)	NR	90 (NT)	NR
	48-h	Development (%NP)	100% PW	NR	0.0 (NT)	NR	0.0 (NT)	NR
		Overall (F or D)	100% PW	NR	NT	NR	NT	NR
	30-m	Fertilization (%EF)	50% PW	NR	54.4 (T)	NR	46.8 (T)	NR
	48-h	Development (%NP)	50% PW	NR	0.0 (T)	NR	0.0 (T)	NR
		Overall (F or D)	50% PW	NR	T	NR	T	NR
<i>Nereis virens</i>	30-m	Total Abundance (#/35.4 cm ²)	25% PW	NR	87.4 (T)	NR	71.6 (T)	NR
	48-h	Development (%NP)	25% PW	NR	0.0 (T)	NR	3.4 (T)	NR
		Overall (F or D)	25% PW	NR	T	NR	T	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.345	0.245	0.248	0.243	0.245
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	0.6	0.4	0.2	4.8	0.4
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0	0	0
	LT	Richness (# species/35.4 cm ²)	WS	3	1	1	1	1
	LT	Total Abundance (#/35.4 cm ²)	WS	1	0.4	0.2	4.8	0.4
		Overall	WS	I	I	I	I	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR	91 (NT)	90 (T)

Table B7-7. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Upper Bayou d'Inde.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST001- NSD-010	00BI2-ST002- NSD-010	00BI2-ST003- NSD-010	00BI2-ST004- NSD-010	00BI2-ST005- NSD2-010
Fish Community								
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	NR	0 (NT)	NR	0 (NT)	NR
	48-h	Survival (%)	100% PW	NR	0 (NT)	NR	0 (NT)	NR
		Overall (H or S)	100% PW	NR	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	50% PW	NR	0 (NT)	NR	0 (NT)	NR
	48-h	Survival (%)	50% PW	NR	0 (NT)	NR	0 (NT)	NR
		Overall (H or S)	50% PW	NR	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	25% PW	NR	10 (NT)	NR	28 (NT)	NR
	48-h	Survival (%)	25% PW	NR	0 (T)	NR	8 (NT)	NR
		Overall (H or S)	25% PW	NR	T	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-8. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Middle Bayou d'Inde.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST006- NSD-010	00BI2-ST007- NSD-010	00BI2-ST008- NSD-010
<i>Microbial Community</i>						
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	4.7 (NT)	13 (NT)	10 (NT)
<i>Aquatic Plant Community</i>						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	95.6 (NT)	NR	83.2 (NT)
	96-h	Germling Cell Number	100% PW	8.06 (NT)	NR	6.14 (NT)
	96-h	Germling Length (μm)	100% PW	52.98 (NT)	NR	46.24 (NT)
		Overall (Ge or G)	100% PW	NT	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	96.6 (NT)	NR	93.6 (NT)
	96-h	Germling Cell Number	50% PW	10.68 (NT)	NR	9.56 (NT)
	96-h	Germling Length (μm)	50% PW	67.43 (NT)	NR	65.20 (NT)
		Overall (Ge or G)	50% PW	NT	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	95.2 (NT)	NR	92.6 (NT)
	96-h	Germling Cell Number	25% PW	11.16 (NT)	NR	7.66 (NT)
	96-h	Germling Length (μm)	25% PW	70.47 (NT)	NR	67.03 (NT)
		Overall (Ge or G)	25% PW	NT	NR	NT
<i>Benthic Invertebrate Community</i>						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	27 (T)	53 (T)	52 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	100 (NT)	98 (NT)	90 (NT)
	10-d	Growth (mm)	WS	2.40 (NT)	2.71 (NT)	2.46 (NT)
		Overall (S or G)	WS	NT	NT	NT

Table B7-8. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Middle Bayou d'Inde.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST006- NSD-010	00BI2-ST007- NSD-010	00BI2-ST008- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	96 (NT)	98 (NT)	90 (NT)
	28-d	Growth (mm)	WS	2.93 (T)	3.57 (NT)	3.49 (NT)
		Overall (S or G)	WS	T	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	83.6 (NT)	NR	30.2 (NT)
	48-h	Development (%NP)	100% PW	0.0 (NT)	NR	0.0 (NT)
		Overall (F or D)	100% PW	NT	NR	NT
	30-m	Fertilization (%EF)	50% PW	88 (NT)	NR	52.6 (T)
	48-h	Development (%NP)	50% PW	0.0 (T)	NR	0.0 (T)
		Overall (F or D)	50% PW	T	NR	T
<i>Nereis virens</i>	30-m	Fertilization (%EF)	25% PW	94.8 (NT)	NR	86.4 (T)
	48-h	Development (%NP)	25% PW	83.8 (NT)	NR	0.0 (T)
		Overall (F or D)	25% PW	NT	NR	T
<i>Community Structure</i>	LT	Normalized Index	WS	0.573	0.235	0.325
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	2.8	3.8	3
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0.2	0	0
	LT	Richness (# species/35.4 cm ²)	WS	6	1	3
	LT	Total Abundance (#/35.4 cm ²)	WS	3.2	3.8	3
		Overall	WS	NI	I	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR

Table B7-8. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Middle Bayou d'Inde.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST006- NSD-010	00BI2-ST007- NSD-010	00BI2-ST008- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	100% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	100% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	50% PW	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	50% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	50% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	25% PW	72 (NT)	NR	80 (NT)
	48-h	Survival (%)	25% PW	54 (NT)	NR	42 (NT)
		Overall (H or S)	25% PW	NT	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-8. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Middle Bayou d'Inde.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BI2-ST010- NSD-010	00BI2-ST041- NSD-010
<i>Microbial Community</i>				
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	6.4 (NT)	1.0 (T)
<i>Aquatic Plant Community</i>				
<i>Ulva fasciata</i>	96-h	Germination (%)	40.8 (T)	NR
	96-h	Germling Cell Number	1.40 (NT)	NR
	96-h	Germling Length (μm)	13.08 (T)	NR
		Overall (Ge or G)	T	NR
	96-h	Germination (%)	92.2 (NT)	NR
	96-h	Germling Cell Number	7.28 (NT)	NR
	96-h	Germling Length (μm)	55.36 (NT)	NR
		Overall (Ge or G)	NT	NR
	96-h	Germination (%)	93.2 (NT)	NR
	96-h	Germling Cell Number	7.36 (NT)	NR
	96-h	Germling Length (μm)	60.03 (NT)	NR
		Overall (Ge or G)	NT	NR
<i>Benthic Invertebrate Community</i>				
<i>Ampelisca abdita</i>	10-d	Survival (%)	67 (NT)	54 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	95 (NT)	98 (NT)
	10-d	Growth (mm)	2.58 (NT)	2.50 (NT)
		Overall (S or G)	NT	NT

Table B7-8. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Middle Bayou d'Inde.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BI2-ST010- NSD-010	00BI2-ST041- NSD-010
Benthic Invertebrate Community (cont.)				
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	90 (NT)	98 (NT)
	28-d	Growth (mm)	4.10 (NT)	3.70 (NT)
		Overall (S or G)	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	1.4 (T)	NR
	48-h	Development (%NP)	0.0 (NT)	NR
		Overall (F or D)	T	NR
	30-m	Fertilization (%EF)	27.8 (T)	NR
	48-h	Development (%NP)	0.0 (T)	NR
		Overall (F or D)	T	NR
	30-m	Fertilization (%EF)	47.8 (T)	NR
	48-h	Development (%NP)	0.0 (T)	NR
		Overall (F or D)	T	NR
<i>Community Structure</i>	LT	Normalized Index	0.243	0.248
	LT	Pollution Indicator Species (#/35.4 cm ²)	0.6	0.2
	LT	Pollution Sensitive Species (#/35.4 cm ²)	0	0
	LT	Richness (# species/35.4 cm ²)	1	1
	LT	Total Abundance (#/35.4 cm ²)	0.6	0.2
		Overall	I	I
<i>Nereis virens</i>	28-d	Survival (%)	NR	NR

Table B7-8. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Middle Bayou d'Inde.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BI2-ST010- NSD-010	00BI2-ST041- NSD-010
Fish Community				
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	0 (NT)	NR
	48-h	Survival (%)	0 (NT)	NR
		Overall (H or S)	NT	NR
	24-h	Hatch/Survival (%)	0 (NT)	NR
	48-h	Survival (%)	0 (NT)	NR
		Overall (H or S)	NT	NR
	24-h	Hatch/Survival (%)	66 (NT)	NR
	48-h	Survival (%)	2 (NT)	NR
		Overall (H or S)	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-9. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Mainstem.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST024- NSD-010	00BI2-ST025- NSD-010	00BI2-ST026- NSD-010
<i>Microbial Community</i>						
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	11 (NT)	29 (NT)	11 (NT)
<i>Aquatic Plant Community</i>						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	87.4 (NT)	NR	88.4 (NT)
	96-h	Germling Cell Number	100% PW	6.92 (NT)	NR	9.08 (NT)
	96-h	Germling Length (μm)	100% PW	53.64 (NT)	NR	60.84 (NT)
		Overall (Ge or G)	100% PW	NT	NR	NT
	96-h	Germination (%)	50% PW	92.4 (NT)	NR	95.2 (NT)
	96-h	Germling Cell Number	50% PW	9.82 (NT)	NR	9.86 (NT)
	96-h	Germling Length (μm)	50% PW	65.91 (NT)	NR	67.23 (NT)
		Overall (Ge or G)	50% PW	NT	NR	NT
	96-h	Germination (%)	25% PW	91.2 (T)	NR	91.2 (T)
	96-h	Germling Cell Number	25% PW	9.40 (NT)	NR	7.88 (NT)
	96-h	Germling Length (μm)	25% PW	67.63 (NT)	NR	67.63 (NT)
		Overall (Ge or G)	25% PW	T	NR	T
<i>Benthic Invertebrate Community</i>						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	0 (T)	22 (T)	0 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	63 (T)	75 (NT)	68 (T)
	10-d	Growth (mm)	WS	2.29 (NT)	2.22 (T)	2.04 (T)
		Overall (S or G)	WS	T	T	T

Table B7-9. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Mainstem.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST024- NSD-010	00BI2-ST025- NSD-010	00BI2-ST026- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	73 (T)	88 (NT)	33 (T)
	28-d	Growth (mm)	WS	2.78 (T)	3.89 (NT)	2.63 (T)
		Overall (S or G)	WS	T	NT	T
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	52 (NT)	NR	94.6 (NT)
	48-h	Development (%NP)	100% PW	0.0 (NT)	NR	0.0 (NT)
		Overall (F or D)	100% PW	NT	NR	NT
	30-m	Fertilization (%EF)	50% PW	94.2 (NT)	NR	96 (NT)
	48-h	Development (%NP)	50% PW	0.0 (T)	NR	0.0 (T)
		Overall (F or D)	50% PW	T	NR	T
	30-m	Fertilization (%EF)	25% PW	95.6 (NT)	NR	96.8 (NT)
	48-h	Development (%NP)	25% PW	12.6 (T)	NR	86.6 (NT)
		Overall (F or D)	25% PW	T	NR	NT
<i>Community Structure</i>	LT	Normalized Index	WS	0.568	0.36	0.418
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	1.6	1.6	3
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0.2	0	0
	LT	Richness (# species/35.4 cm ²)	WS	5	4	7
	LT	Total Abundance (#/35.4 cm ²)	WS	2	1.8	3.4
		Overall	WS	NI	I	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR

Table B7-9. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Mainstem.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST024- NSD-010	00BI2-ST025- NSD-010	00BI2-ST026- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	100% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	100% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	50% PW	66 (NT)	NR	34 (NT)
	48-h	Survival (%)	50% PW	0 (NT)	NR	14 (NT)
		Overall (H or S)	50% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	25% PW	70 (NT)	NR	92 (NT)
	48-h	Survival (%)	25% PW	54 (NT)	NR	72 (NT)
		Overall (H or S)	25% PW	NT	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-10. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST012- NSD-010	00BI2-ST013- NSD-010	00BI2-ST014- NSD-010	00BI2-ST015- NSD-010
<i>Microbial Community</i>							
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	13 (NT)	1.7 (NT)	5.8 (NT)	3.9 (NT)
<i>Aquatic Plant Community</i>							
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	95 (NT)	NR	80.2 (NT)	NR
	96-h	Germling Cell Number	100% PW	6.96 (NT)	NR	8.70 (NT)	NR
	96-h	Germling Length (μm)	100% PW	55.36 (NT)	NR	57.49 (NT)	NR
		Overall (Ge or G)	100% PW	NT	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	94.8 (NT)	NR	84.8 (T)	NR
	96-h	Germling Cell Number	50% PW	7.32 (NT)	NR	10.08 (NT)	NR
	96-h	Germling Length (μm)	50% PW	61.55 (NT)	NR	68.34 (NT)	NR
		Overall (Ge or G)	50% PW	NT	NR	T	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	93.6 (NT)	NR	87 (T)	NR
	96-h	Germling Cell Number	25% PW	6.66 (NT)	NR	10.66 (NT)	NR
	96-h	Germling Length (μm)	25% PW	58.71 (NT)	NR	72.91 (NT)	NR
		Overall (Ge or G)	25% PW	NT	NR	T	NR
<i>Benthic Invertebrate Community</i>							
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	23 (T)	7 (T)	0 (T)	29 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	90 (NT)	70 (T)	10 (T)	73 (NT)
	10-d	Growth (mm)	WS	2.29 (NT)	2.14 (T)	2.13 (T)	2.53 (NT)
		Overall (S or G)	WS	NT	T	T	NT

Table B7-10. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST012- NSD-010	00BI2-ST013- NSD-010	00BI2-ST014- NSD-010	00BI2-ST015- NSD-010
Benthic Invertebrate Community (cont.)							
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	78 (T)	56 (T)	23 (T)	80 (T)
	28-d	Growth (mm)	WS	3.28 (NT)	2.79 (T)	4.60 (NT)	4.13 (NT)
		Overall (S or G)	WS	T	T	T	T
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	66 (NT)	NR	23 (T)	NR
	48-h	Development (%NP)	100% PW	0.0 (NT)	NR	0.0 (NT)	NR
		Overall (F or D)	100% PW	NT	NR	NT	NR
	30-m	Fertilization (%EF)	50% PW	88.6 (NT)	NR	66 (T)	NR
	48-h	Development (%NP)	50% PW	4.8 (NT)	NR	0.0 (T)	NR
		Overall (F or D)	50% PW	NT	NR	T	NR
	30-m	Fertilization (%EF)	25% PW	93.6 (NT)	NR	90.8 (T)	NR
	48-h	Development (%NP)	25% PW	84.2 (NT)	NR	81.0 (T)	NR
		Overall (F or D)	25% PW	NT	NR	T	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.31	0.34	0.243	0.348
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	0.6	4	0.6	1.8
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0	0
	LT	Richness (# species/35.4 cm ²)	WS	2	4	1	4
	LT	Total Abundance (#/35.4 cm ²)	WS	0.8	4	0.6	1.8
		Overall	WS	I	I	I	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR	NR

Table B7-10. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-ST012- NSD-010	00BI2-ST013- NSD-010	00BI2-ST014- NSD-010	00BI2-ST015- NSD-010
Fish Community							
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	0 (NT)	NR	0 (NT)	NR
	48-h	Survival (%)	100% PW	0 (NT)	NR	0 (NT)	NR
		Overall (H or S)	100% PW	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	50% PW	90 (NT)	NR	90 (NT)	NR
	48-h	Survival (%)	50% PW	62 (NT)	NR	38 (NT)	NR
		Overall (H or S)	50% PW	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	25% PW	88 (NT)	NR	86 (NT)	NR
	48-h	Survival (%)	25% PW	76 (NT)	NR	48 (NT)	NR
		Overall (H or S)	25% PW	NT	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-10. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BI2-ST016- NSD-010	00BI2-ST017- NSD-010	00BI2-ST018- NSD-010	00BI2-ST019- NSD-010
<i>Microbial Community</i>						
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	9.8 (NT)	5.9 (NT)	17 (NT)	13 (NT)
<i>Aquatic Plant Community</i>						
<i>Ulva fasciata</i>	96-h	Germination (%)	27.8 (T)	NR	85.6 (NT)	NR
	96-h	Germling Cell Number	3.92 (NT)	NR	9.30 (NT)	NR
	96-h	Germling Length (μm)	32.45 (NT)	NR	59.83 (NT)	NR
		Overall (Ge or G)	T	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	80.6 (T)	NR	91 (NT)	NR
	96-h	Germling Cell Number	11.00 (NT)	NR	11.28 (NT)	NR
	96-h	Germling Length (μm)	73.01 (NT)	NR	71.39 (NT)	NR
		Overall (Ge or G)	T	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	88 (T)	NR	93.6 (NT)	NR
	96-h	Germling Cell Number	11.32 (NT)	NR	11.80 (NT)	NR
	96-h	Germling Length (μm)	75.04 (NT)	NR	74.12 (NT)	NR
		Overall (Ge or G)	T	NR	NT	NR
<i>Benthic Invertebrate Community</i>						
<i>Ampelisca abdita</i>	10-d	Survival (%)	0 (T)	0 (T)	0 (T)	10 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	20 (T)	18 (T)	25 (T)	53 (T)
	10-d	Growth (mm)	2.29 (NT)	2.20 (T)	2.14 (T)	2.60 (NT)
		Overall (S or G)	T	T	T	T

Table B7-10. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BI2-ST016- NSD-010	00BI2-ST017- NSD-010	00BI2-ST018- NSD-010	00BI2-ST019- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	20 (T)	30 (T)	45 (T)	33 (T)
	28-d	Growth (mm)	3.87 (NT)	3.63 (NT)	2.82 (T)	3.11 (T)
		Overall (S or G)	T	T	T	T
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	8.8 (T)	NR	71.2 (NT)	NR
	48-h	Development (%NP)	0.0 (NT)	NR	0.0 (NT)	NR
		Overall (F or D)	T	NR	NT	NR
	30-m	Fertilization (%EF)	42.4 (T)	NR	90.8 (NT)	NR
	48-h	Development (%NP)	0.0 (T)	NR	0.0 (T)	NR
		Overall (F or D)	T	NR	T	NR
	30-m	Fertilization (%EF)	71 (T)	NR	96.4 (NT)	NR
	48-h	Development (%NP)	40.6 (T)	NR	71.6 (T)	NR
		Overall (F or D)	T	NR	T	NR
<i>Community Structure</i>	LT	Normalized Index	0.243	0.248	0.248	0.353
	LT	Pollution Indicator Species (#/35.4 cm ²)	0.6	0.2	0.8	3.2
	LT	Pollution Sensitive Species (#/35.4 cm ²)	0	0	0	0
	LT	Richness (# species/35.4 cm ²)	1	1	1	4
	LT	Total Abundance (#/35.4 cm ²)	0.6	0.2	0.8	3.4
		Overall	I	I	I	I
<i>Nereis virens</i>	28-d	Survival (%)	NR	NR	NR	91 (NT)

Table B7-10. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BI2-ST016- NSD-010	00BI2-ST017- NSD-010	00BI2-ST018- NSD-010	00BI2-ST019- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	0 (NT)	NR	0 (NT)	NR
	48-h	Survival (%)	0 (NT)	NR	0 (NT)	NR
		Overall (H or S)	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	92 (NT)	NR	84 (NT)	NR
	48-h	Survival (%)	8 (NT)	NR	44 (NT)	NR
		Overall (H or S)	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	90 (NT)	NR	80 (NT)	NR
	48-h	Survival (%)	88 (NT)	NR	66 (NT)	NR
		Overall (H or S)	NT	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-10. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BI2-ST020- NSD-010	00BI2-ST021- NSD-010	00BI2-ST022- NSD-010	00BI2-ST023- NSD-010
<i>Microbial Community</i>						
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	4.2 (NT)	8.9 (NT)	19 (NT)	11 (NT)
<i>Aquatic Plant Community</i>						
<i>Ulva fasciata</i>	96-h	Germination (%)	38.2 (T)	NR	69.4 (NT)	NR
	96-h	Germling Cell Number	2.70 (NT)	NR	5.00 (NT)	NR
	96-h	Germling Length (μm)	22.31 (NT)	NR	38.02 (NT)	NR
		Overall (Ge or G)	T	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	84.8 (T)	NR	89.6 (T)	NR
	96-h	Germling Cell Number	9.96 (NT)	NR	9.00 (NT)	NR
	96-h	Germling Length (μm)	66.52 (NT)	NR	66.62 (NT)	NR
		Overall (Ge or G)	T	NR	T	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	92.4 (NT)	NR	93.4 (NT)	NR
	96-h	Germling Cell Number	10.54 (NT)	NR	8.88 (NT)	NR
	96-h	Germling Length (μm)	74.43 (NT)	NR	70.78 (NT)	NR
		Overall (Ge or G)	NT	NR	NT	NR
<i>Benthic Invertebrate Community</i>						
<i>Ampelisca abdita</i>	10-d	Survival (%)	41 (T)	30 (T)	52 (T)	51 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	75 (NT)	60 (T)	88 (NT)	90 (NT)
	10-d	Growth (mm)	2.43 (NT)	2.74 (NT)	2.36 (NT)	2.53 (NT)
		Overall (S or G)	NT	T	NT	NT

Table B7-10. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BI2-ST020- NSD-010	00BI2-ST021- NSD-010	00BI2-ST022- NSD-010	00BI2-ST023- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	90 (NT)	43 (T)	88 (NT)	98 (NT)
	28-d	Growth (mm)	4.53 (NT)	4.16 (NT)	3.23 (NT)	4.01 (NT)
		Overall (S or G)	NT	T	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	31 (NT)	NR	35.4 (NT)	NR
	48-h	Development (%NP)	0.0 (NT)	NR	0.0 (NT)	NR
		Overall (F or D)	NT	NR	NT	NR
	30-m	Fertilization (%EF)	52 (T)	NR	88 (NT)	NR
	48-h	Development (%NP)	0.0 (T)	NR	0.0 (T)	NR
		Overall (F or D)	T	NR	T	NR
	30-m	Fertilization (%EF)	67.4 (T)	NR	96.6 (NT)	NR
	48-h	Development (%NP)	0.0 (T)	NR	11.2 (T)	NR
		Overall (F or D)	T	NR	T	NR
<i>Community Structure</i>	LT	Normalized Index	0.295	0.79	0.63	0.675
	LT	Pollution Indicator Species (#/35.4 cm ²)	2	8.4	8	2.6
	LT	Pollution Sensitive Species (#/35.4 cm ²)	0	20.2	0.4	0.8
	LT	Richness (# species/35.4 cm ²)	2	15	8	8
	LT	Total Abundance (#/35.4 cm ²)	2	30.2	9.4	4
		Overall	I	NI	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	NR	NR	NR	NR

Table B7-10. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Lower Bayou d'Inde - Lockport Marsh.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00BI2-ST020- NSD-010	00BI2-ST021- NSD-010	00BI2-ST022- NSD-010	00BI2-ST023- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	0 (NT)	NR	0 (NT)	NR
	48-h	Survival (%)	0 (NT)	NR	0 (NT)	NR
		Overall (H or S)	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	0 (NT)	NR	0 (NT)	NR
	48-h	Survival (%)	0 (NT)	NR	0 (NT)	NR
		Overall (H or S)	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	84 (NT)	NR	82 (NT)	NR
	48-h	Survival (%)	60 (NT)	NR	76 (NT)	NR
		Overall (H or S)	NT	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-11. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from PPG Canal.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-	00BI2-	00BI2-	00BI2-	00BI2-	00BI2-
				ST011-NSD· 010	ST027-NSD· 010	ST028-NSD· 010	ST029-NSD· 010	ST030-NSD· 010	ST031-NSD· 010
Microbial Community									
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	0.59 (T)	3.0 (NT)	22 (NT)	22 (NT)	16 (NT)	9.1 (NT)
Aquatic Plant Community									
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	NR	NR	92.6 (NT)	NR	79.4 (NT)	NR
	96-h	Germling Cell Number	100% PW	NR	NR	12.54 (NT)	NR	2.10 (NT)	NR
	96-h	Germling Length (μm)	100% PW	NR	NR	81.53 (NT)	NR	20.38 (NT)	NR
			Overall (Ge or G)	100% PW	NR	NR	NT	NR	NT
	96-h	Germination (%)	50% PW	NR	NR	93 (NT)	NR	90.2 (T)	NR
	96-h	Germling Cell Number	50% PW	NR	NR	10.82 (NT)	NR	2.92 (NT)	NR
	96-h	Germling Length (μm)	50% PW	NR	NR	73.62 (NT)	NR	30.07 (NT)	NR
			Overall (Ge or G)	50% PW	NR	NR	NT	NR	T
	96-h	Germination (%)	25% PW	NR	NR	92.4 (NT)	NR	89.8 (T)	NR
	96-h	Germling Cell Number	25% PW	NR	NR	3.80 (NT)	NR	2.78 (NT)	NR
<i>Ampelisca abdita</i>	96-h	Germling Length (μm)	25% PW	NR	NR	39.55 (NT)	NR	30.32 (T)	NR
			Overall (Ge or G)	25% PW	NR	NR	NT	NR	T
	10-d	Survival (%)	WS	37 (T)	14 (T)	63 (NT)	1 (T)	3 (T)	67 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	53 (T)	78 (NT)	95 (NT)	93 (NT)	100 (NT)	98 (NT)
	10-d	Growth (mm)	WS	2.07 (T)	2.11 (T)	2.63 (NT)	2.57 (NT)	2.70 (NT)	2.51 (NT)
			Overall (S or G)	WS	T	T	NT	NT	NT

Table B7-11. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from PPG Canal.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-	00BI2-	00BI2-	00BI2-	00BI2-	00BI2-
				ST011-NSD· 010	ST027-NSD· 010	ST028-NSD· 010	ST029-NSD· 010	ST030-NSD· 010	ST031-NSD· 010
Benthic Invertebrate Community (cont.)									
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	68 (T)	68 (T)	93 (NT)	93 (NT)	85 (NT)	93 (NT)
	28-d	Growth (mm)	WS	3.37 (NT)	4.29 (NT)	3.76 (NT)	3.44 (NT)	3.31 (NT)	3.69 (NT)
		Overall (S or G)	WS	T	T	NT	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	NR	NR	82.8 (NT)	NR	85 (NT)	NR
		Development (%NP)	100% PW	NR	NR	0.0 (NT)	NR	2.8 (NT)	NR
		Overall (F or D)	100% PW	NR	NR	NT	NR	NT	NR
	48-h	Fertilization (%EF)	50% PW	NR	NR	95.4 (NT)	NR	94.4 (NT)	NR
		Development (%NP)	50% PW	NR	NR	86.6 (NT)	NR	85.8 (NT)	NR
		Overall (F or D)	50% PW	NR	NR	NT	NR	NT	NR
	30-m	Fertilization (%EF)	25% PW	NR	NR	94.6 (NT)	NR	96 (NT)	NR
		Development (%NP)	25% PW	NR	NR	86.6 (NT)	NR	83.8 (NT)	NR
		Overall (F or D)	25% PW	NR	NR	NT	NR	NT	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.31	0.255	0.245	0.248	0.3	0.3
		Pollution Indicator Species (#/35.4 cm ²)	WS	0.2	0	0.4	0.8	1.8	2.4
		Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0	0	0	0
		Richness (# species/35.4 cm ²)	WS	2	0	1	1	2	2
		Total Abundance (#/35.4 cm ²)	WS	0.4	0	0.4	0.8	1.8	2.4
		Overall	WS	I	I	I	I	I	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	88 (T)	93 (NT)	NR	NR	87 (NT)	NR

Table B7-11. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from PPG Canal.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00BI2-	00BI2-	00BI2-	00BI2-	00BI2-	00BI2-
				ST011-NSD· 010	ST027-NSD· 010	ST028-NSD· 010	ST029-NSD· 010	ST030-NSD· 010	ST031-NSD· 010
Fish Community									
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	NR	NR	82 (NT)	NR	62 (NT)	NR
		Survival (%)	100% PW	NR	NR	58 (NT)	NR	22 (NT)	NR
		Overall (H or S)	100% PW	NR	NR	NT	NR	NT	NR
	48-h	Hatch/Survival (%)	50% PW	NR	NR	96 (NT)	NR	92 (NT)	NR
		Survival (%)	50% PW	NR	NR	84 (NT)	NR	84.2 (NT)	NR
		Overall (H or S)	50% PW	NR	NR	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	25% PW	NR	NR	90 (NT)	NR	86 (NT)	NR
		Survival (%)	25% PW	NR	NR	74 (NT)	NR	78 (NT)	NR
		Overall (H or S)	25% PW	NR	NR	NT	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-12. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Prien Lake and upper old river channel.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST001- NSD-010	00LC2-ST002- NSD-010	00LC2-ST003- NSD-010	00LC2-ST004- NSD-010
<i>Microbial Community</i>							
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	7.2 (NT)	9.6 (NT)	1.8 (NT)	12 (NT)
<i>Aquatic Plant Community</i>							
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	96.6 (NT)	NR	97 (NT)	NR
	96-h	Germling Cell Number	100% PW	6.04 (NT)	NR	9.28 (NT)	NR
	96-h	Germling Length (μm)	100% PW	54.60 (NT)	NR	64.85 (NT)	NR
		Overall (Ge or G)	100% PW	NT	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	97.4 (NT)	NR	96.4 (NT)	NR
	96-h	Germling Cell Number	50% PW	6.26 (NT)	NR	9.42 (NT)	NR
	96-h	Germling Length (μm)	50% PW	57.90 (NT)	NR	69.46 (NT)	NR
		Overall (Ge or G)	50% PW	NT	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	95.2 (NT)	NR	97.4 (NT)	NR
	96-h	Germling Cell Number	25% PW	5.78 (NT)	NR	8.88 (NT)	NR
	96-h	Germling Length (μm)	25% PW	54.25 (NT)	NR	70.37 (NT)	NR
		Overall (Ge or G)	25% PW	NT	NR	NT	NR
<i>Benthic Invertebrate Community</i>							
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	85 (NT)	53 (T)	29 (T)	66 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	100 (NT)	98 (NT)	78 (NT)	88 (NT)
	10-d	Growth (mm)	WS	2.99 (NT)	2.69 (NT)	2.47 (NT)	2.59 (NT)
		Overall (S or G)	WS	NT	NT	NT	NT

Table B7-12. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Prien Lake and upper old river channel.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST001- NSD-010	00LC2-ST002- NSD-010	00LC2-ST003- NSD-010	00LC2-ST004- NSD-010
Benthic Invertebrate Community (cont.)							
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	98 (NT)	95 (NT)	93 (NT)	95 (NT)
	28-d	Growth (mm)	WS	4.36 (NT)	3.76 (NT)	3.82 (NT)	4.56 (NT)
		Overall (S or G)	WS	NT	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	92.8 (NT)	NR	77.8 (NT)	95 (NT)
		Development (%NP)	100% PW	17.2 (NT)	NR	0.0 (NT)	NR
		Overall (F or D)	100% PW	NT	NR	NT	NR
	48-h	Fertilization (%EF)	50% PW	96.8 (NT)	NR	97.2 (NT)	NR
		Development (%NP)	50% PW	84.2 (NT)	NR	81.4 (NT)	NR
		Overall (F or D)	50% PW	NT	NR	NT	NR
	30-m	Fertilization (%EF)	25% PW	95.4 (NT)	NR	94.4 (NT)	NR
		Development (%NP)	25% PW	82.8 (NT)	NR	84.8 (NT)	NR
		Overall (F or D)	25% PW	NT	NR	NT	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.433	0.75	0.673	0.59
		Pollution Indicator Species (#/35.4 cm ²)	WS	6.2	10.6	27.6	3.2
		Pollution Sensitive Species (#/35.4 cm ²)	WS	0	11	0.4	0.4
		Richness (# species/35.4 cm ²)	WS	8	12	10	6
		Total Abundance (#/35.4 cm ²)	WS	6.8	23.8	28.4	3.6
		Overall	WS	NI	NI	NI	NI
	Nereis virens	Survival (%)	WS	NR	NR	NR	NR

Table B7-12. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Prien Lake and upper old river channel.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST001- NSD-010	00LC2-ST002- NSD-010	00LC2-ST003- NSD-010	00LC2-ST004- NSD-010
Fish Community							
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	0 (NT)	NR	0 (NT)	NR
	48-h	Survival (%)	100% PW	0 (NT)	NR	0 (NT)	NR
		Overall (H or S)	100% PW	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	50% PW	0 (NT)	NR	34 (NT)	NR
	48-h	Survival (%)	50% PW	0 (NT)	NR	4 (NT)	NR
		Overall (H or S)	50% PW	NT	NR	NT	NR
	24-h	Hatch/Survival (%)	25% PW	64 (NT)	NR	90 (NT)	NR
	48-h	Survival (%)	25% PW	32.2 (NT)	NR	72 (NT)	NR
		Overall (H or S)	25% PW	NT	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-13. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Indian Wells Lagoon.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST005- NSD-010	00LC2-ST006- NSD-010	00LC2-ST007- NSD-010
Microbial Community						
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	0.27 (T)	4.9 (NT)	14 (NT)
Aquatic Plant Community						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	0 (T)	NR	68.2 (NT)
	96-h	Germling Cell Number	100% PW	0.00 (T)	NR	4.02 (NT)
	96-h	Germling Length (μm)	100% PW	0.00 (T)	NR	31.03 (NT)
		Overall (Ge or G)	100% PW	T	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	34.8 (T)	NR	91.2 (NT)
	96-h	Germling Cell Number	50% PW	6.46 (NT)	NR	8.24 (NT)
	96-h	Germling Length (μm)	50% PW	44.41 (NT)	NR	55.87 (NT)
		Overall (Ge or G)	50% PW	T	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	73.4 (T)	NR	94 (NT)
	96-h	Germling Cell Number	25% PW	6.82 (NT)	NR	8.38 (NT)
	96-h	Germling Length (μm)	25% PW	47.25 (NT)	NR	61.45 (NT)
		Overall (Ge or G)	25% PW	T	NR	NT
Benthic Invertebrate Community						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	0 (T)	0 (T)	2 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	0 (T)	43 (T)	73 (NT)
	10-d	Growth (mm)	WS	NR	2.16 (T)	2.25 (T)
		Overall (S or G)	WS	T	T	T

Table B7-13. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Indian Wells Lagoon.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST005- NSD-010	00LC2-ST006- NSD-010	00LC2-ST007- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	0 (T)	48 (T)	68 (T)
	28-d	Growth (mm)	WS	NR	3.39 (NT)	4.01 (NT)
		Overall (S or G)	WS	T	T	T
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	0 (T)	NR	5.8 (T)
	48-h	Development (%NP)	100% PW	0.0 (NT)	NR	0.0 (NT)
		Overall (F or D)	100% PW	T	NR	T
	30-m	Fertilization (%EF)	50% PW	1 (T)	NR	42.2 (T)
	48-h	Development (%NP)	50% PW	72.0 (NT)	NR	0.0 (T)
		Overall (F or D)	50% PW	T	NR	T
	30-m	Fertilization (%EF)	25% PW	5 (T)	NR	84.2 (T)
	48-h	Development (%NP)	25% PW	81.4 (T)	NR	1.0 (T)
		Overall (F or D)	25% PW	T	NR	T
<i>Community Structure</i>	LT	Normalized Index	WS	0.323	0.363	0.313
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	0	1	3.8
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0
	LT	Richness (# species/35.4 cm ²)	WS	2	4	3
	LT	Total Abundance (#/35.4 cm ²)	WS	0.4	1.2	3.8
		Overall	WS	I	I	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	91 (NT)	NR

Table B7-13. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Indian Wells Lagoon.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST005- NSD-010	00LC2-ST006- NSD-010	00LC2-ST007- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	100% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	100% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	50% PW	44 (NT)	NR	52 (NT)
	48-h	Survival (%)	50% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	50% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	25% PW	94 (NT)	NR	66 (NT)
	48-h	Survival (%)	25% PW	0 (T)	NR	18 (NT)
		Overall (H or S)	25% PW	T	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-14. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Olsen.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST008- NSD-010	00LC2-ST009- NSD-010	00LC2-ST010- NSD-010
<i>Microbial Community</i>						
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	20 (NT)	22 (NT)	13 (NT)
<i>Aquatic Plant Community</i>						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	NR	96.4 (NT)	NR
	96-h	Germling Cell Number	100% PW	NR	8.62 (NT)	NR
	96-h	Germling Length (μm)	100% PW	NR	63.58 (NT)	NR
		Overall (Ge or G)	100% PW	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	NR	96 (NT)	NR
	96-h	Germling Cell Number	50% PW	NR	8.74 (NT)	NR
	96-h	Germling Length (μm)	50% PW	NR	67.94 (NT)	NR
		Overall (Ge or G)	50% PW	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	NR	96.2 (NT)	NR
	96-h	Germling Cell Number	25% PW	NR	7.04 (NT)	NR
	96-h	Germling Length (μm)	25% PW	NR	62.67 (NT)	NR
		Overall (Ge or G)	25% PW	NR	NT	NR
<i>Benthic Invertebrate Community</i>						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	67 (NT)	67 (NT)	55 (T)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	93 (NT)	93 (NT)	95 (NT)
	10-d	Growth (mm)	WS	3.07 (NT)	2.98 (NT)	3.00 (NT)
		Overall (S or G)	WS	NT	NT	NT

Table B7-14. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Olsen.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST008- NSD-010	00LC2-ST009- NSD-010	00LC2-ST010- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	100 (NT)	80 (T)	90 (NT)
	28-d	Growth (mm)	WS	3.78 (NT)	4.05 (NT)	4.10 (NT)
		Overall (S or G)	WS	NT	T	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	NR	87 (NT)	NR
	48-h	Development (%NP)	100% PW	NR	0.0 (NT)	NR
		Overall (F or D)	100% PW	NR	NT	NR
	30-m	Fertilization (%EF)	50% PW	NR	96.2 (NT)	NR
	48-h	Development (%NP)	50% PW	NR	0.0 (T)	NR
		Overall (F or D)	50% PW	NR	T	NR
	30-m	Fertilization (%EF)	25% PW	NR	95.8 (NT)	NR
	48-h	Development (%NP)	25% PW	NR	85.8 (NT)	NR
		Overall (F or D)	25% PW	NR	NT	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.603	0.585	0.318
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	1.8	3.8	4.8
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0.2	0.2	0
	LT	Richness (# species/35.4 cm ²)	WS	7	7	3
	LT	Total Abundance (#/35.4 cm ²)	WS	2.2	4.2	4.8
		Overall	WS	NI	NI	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR

Table B7-14. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Olsen.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST008- NSD-010	00LC2-ST009- NSD-010	00LC2-ST010- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	NR	0 (NT)	NR
	48-h	Survival (%)	100% PW	NR	0 (NT)	NR
		Overall (H or S)	100% PW	NR	NT	NR
	24-h	Hatch/Survival (%)	50% PW	NR	48 (NT)	NR
	48-h	Survival (%)	50% PW	NR	4 (NT)	NR
		Overall (H or S)	50% PW	NR	NT	NR
	24-h	Hatch/Survival (%)	25% PW	NR	90 (NT)	NR
	48-h	Survival (%)	25% PW	NR	66 (NT)	NR
		Overall (H or S)	25% PW	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-14. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Olsen.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00LC2-ST011- NSD-010	00LC2-ST012- NSD-010
<i>Microbial Community</i>				
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	37 (NT)	5.6 (NT)
<i>Aquatic Plant Community</i>				
<i>Ulva fasciata</i>	96-h	Germination (%)	93.8 (NT)	NR
	96-h	Germling Cell Number	10.06 (NT)	NR
	96-h	Germling Length (μm)	66.32 (NT)	NR
		Overall (Ge or G)	NT	NR
	96-h	Germination (%)	94.2 (NT)	NR
	96-h	Germling Cell Number	10.46 (NT)	NR
	96-h	Germling Length (μm)	71.89 (NT)	NR
		Overall (Ge or G)	NT	NR
	96-h	Germination (%)	94.8 (NT)	NR
	96-h	Germling Cell Number	10.10 (NT)	NR
	96-h	Germling Length (μm)	74.02 (NT)	NR
		Overall (Ge or G)	NT	NR
<i>Benthic Invertebrate Community</i>				
<i>Ampelisca abdita</i>	10-d	Survival (%)	60 (T)	72 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	95 (NT)	90 (NT)
	10-d	Growth (mm)	2.99 (NT)	2.85 (NT)
		Overall (S or G)	NT	NT

Table B7-14. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Olsen.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00LC2-ST011- NSD-010	00LC2-ST012- NSD-010
Benthic Invertebrate Community (cont.)				
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	98 (NT)	100 (NT)
	28-d	Growth (mm)	4.26 (NT)	3.52 (NT)
		Overall (S or G)	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	43.8 (NT)	NR
	48-h	Development (%NP)	0.0 (NT)	NR
		Overall (F or D)	NT	NR
	30-m	Fertilization (%EF)	78.2 (NT)	NR
	48-h	Development (%NP)	83.0 (NT)	NR
		Overall (F or D)	NT	NR
	30-m	Fertilization (%EF)	94 (NT)	NR
	48-h	Development (%NP)	85.8 (NT)	NR
		Overall (F or D)	NT	NR
<i>Community Structure</i>	LT	Normalized Index	0.335	0.238
	LT	Pollution Indicator Species (#/35.4 cm ²)	1.4	9
	LT	Pollution Sensitive Species (#/35.4 cm ²)	0	0
	LT	Richness (# species/35.4 cm ²)	3	1
	LT	Total Abundance (#/35.4 cm ²)	1.4	9
		Overall	I	I
<i>Nereis virens</i>	28-d	Survival (%)	NR	NR

Table B7-14. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Olsen.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00LC2-ST011- NSD-010	00LC2-ST012- NSD-010
Fish Community				
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	12 (NT)	NR
	48-h	Survival (%)	0 (NT)	NR
		Overall (H or S)	NT	NR
	24-h	Hatch/Survival (%)	80 (NT)	NR
	48-h	Survival (%)	62 (NT)	NR
		Overall (H or S)	NT	NR
	24-h	Hatch/Survival (%)	82 (NT)	NR
	48-h	Survival (%)	78 (NT)	NR
		Overall (H or S)	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-15. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Moss Lake.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST013- NSD-010	00LC2-ST014- NSD-010	00LC2-ST027- NSD-010
Microbial Community						
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	0.24 (T)	14 (NT)	0.32 (T)
Aquatic Plant Community						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	94.8 (NT)	NR	92.8 (NT)
	96-h	Germling Cell Number	100% PW	9.84 (NT)	NR	7.74 (NT)
	96-h	Germling Length (μm)	100% PW	67.74 (NT)	NR	55.97 (NT)
		Overall (Ge or G)	100% PW	NT	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	95.2 (NT)	NR	95.2 (NT)
	96-h	Germling Cell Number	50% PW	10.82 (NT)	NR	10.16 (NT)
	96-h	Germling Length (μm)	50% PW	70.57 (NT)	NR	68.24 (NT)
		Overall (Ge or G)	50% PW	NT	NR	NT
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	96.4 (NT)	NR	97.2 (NT)
	96-h	Germling Cell Number	25% PW	11.38 (NT)	NR	10.54 (NT)
	96-h	Germling Length (μm)	25% PW	79.19 (NT)	NR	70.68 (NT)
		Overall (Ge or G)	25% PW	NT	NR	NT
Benthic Invertebrate Community						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	85 (NT)	53 (T)	93 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	88 (NT)	95 (NT)	93 (NT)
	10-d	Growth (mm)	WS	2.86 (NT)	2.74 (NT)	2.85 (NT)
		Overall (S or G)	WS	NT	NT	NT

Table B7-15. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Moss Lake.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST013- NSD-010	00LC2-ST014- NSD-010	00LC2-ST027- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	93 (NT)	93 (NT)	95 (NT)
	28-d	Growth (mm)	WS	4.42 (NT)	3.80 (NT)	3.94 (NT)
		Overall (S or G)	WS	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	92.8 (NT)	NR	37.2 (NT)
	48-h	Development (%NP)	100% PW	0.0 (NT)	NR	0.0 (NT)
		Overall (F or D)	100% PW	NT	NR	NT
	30-m	Fertilization (%EF)	50% PW	94.2 (NT)	NR	91.8 (NT)
	48-h	Development (%NP)	50% PW	35.0 (NT)	NR	0.0 (T)
		Overall (F or D)	50% PW	NT	NR	T
	30-m	Fertilization (%EF)	25% PW	91.8 (T)	NR	94.8 (NT)
	48-h	Development (%NP)	25% PW	87.4 (NT)	NR	78.8 (T)
		Overall (F or D)	25% PW	T	NR	T
<i>Community Structure</i>	LT	Normalized Index	WS	0.395	0.688	0.573
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	28.4	7.6	26.8
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0	3	0.2
	LT	Richness (# species/35.4 cm ²)	WS	6	8	6
	LT	Total Abundance (#/35.4 cm ²)	WS	29	10.6	27.2
		Overall	WS	NI	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR

Table B7-15. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Moss Lake.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00LC2-ST013- NSD-010	00LC2-ST014- NSD-010	00LC2-ST027- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	100% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	100% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	50% PW	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	50% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	50% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	25% PW	38 (NT)	NR	8 (NT)
	48-h	Survival (%)	25% PW	14 (NT)	NR	0 (T)
		Overall (H or S)	25% PW	NT	NR	T

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-16. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Choupique.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST011- NSD-010	00SN2-ST012- NSD-010	00SN2-ST013- NSD-010
Microbial Community						
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	2.1 (NT)	1.7 (NT)	7.7 (NT)
Aquatic Plant Community						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	NR	92.2 (NT)	NR
	96-h	Germling Cell Number	100% PW	NR	8.96 (NT)	NR
	96-h	Germling Length (μm)	100% PW	NR	62.06 (NT)	NR
		Overall (Ge or G)	100% PW	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	NR	94.6 (NT)	NR
	96-h	Germling Cell Number	50% PW	NR	10.28 (NT)	NR
	96-h	Germling Length (μm)	50% PW	NR	71.89 (NT)	NR
		Overall (Ge or G)	50% PW	NR	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	NR	95.2 (NT)	NR
	96-h	Germling Cell Number	25% PW	NR	10.64 (NT)	NR
	96-h	Germling Length (μm)	25% PW	NR	73.41 (NT)	NR
		Overall (Ge or G)	25% PW	NR	NT	NR
Benthic Invertebrate Community						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	91 (NT)	71 (NT)	69 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	98 (NT)	98 (NT)	100 (NT)
	10-d	Growth (mm)	WS	2.86 (NT)	2.61 (NT)	2.75 (NT)
		Overall (S or G)	WS	NT	NT	NT

Table B7-16. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Choupique.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST011- NSD-010	00SN2-ST012- NSD-010	00SN2-ST013- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	93 (NT)	98 (NT)	98 (NT)
	28-d	Growth (mm)	WS	3.78 (NT)	4.00 (NT)	3.87 (NT)
		Overall (S or G)	WS	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	NR	58.4 (NT)	NR
	48-h	Development (%NP)	100% PW	NR	0.0 (NT)	NR
		Overall (F or D)	100% PW	NR	NT	NR
	30-m	Fertilization (%EF)	50% PW	NR	83 (NT)	NR
	48-h	Development (%NP)	50% PW	NR	0.0 (T)	NR
		Overall (F or D)	50% PW	NR	T	NR
	30-m	Fertilization (%EF)	25% PW	NR	95.4 (NT)	NR
	48-h	Development (%NP)	25% PW	NR	83.4 (NT)	NR
		Overall (F or D)	25% PW	NR	NT	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.328	0.32	0.415
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	16.8	14	2.4
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0
	LT	Richness (# species/35.4 cm ²)	WS	3	3	7
	LT	Total Abundance (#/35.4 cm ²)	WS	16.8	14	2.6
		Overall	WS	NI	NI	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	93 (NT)	NR	NR

Table B7-16. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Choupique.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST011- NSD-010	00SN2-ST012- NSD-010	00SN2-ST013- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	NR	0 (NT)	NR
	48-h	Survival (%)	100% PW	NR	0 (NT)	NR
		Overall (H or S)	100% PW	NR	NT	NR
	24-h	Hatch/Survival (%)	50% PW	NR	0 (NT)	NR
	48-h	Survival (%)	50% PW	NR	0 (NT)	NR
		Overall (H or S)	50% PW	NR	NT	NR
	24-h	Hatch/Survival (%)	25% PW	NR	68 (NT)	NR
	48-h	Survival (%)	25% PW	NR	50 (NT)	NR
		Overall (H or S)	25% PW	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-16. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Choupique.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00SN2-ST014- NSD-010	00SN2-ST015- NSD-010
<i>Microbial Community</i>				
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	5.4 (NT)	2.0 (NT)
<i>Aquatic Plant Community</i>				
<i>Ulva fasciata</i>	96-h	Germination (%)	94.2 (NT)	NR
	96-h	Germling Cell Number	10.30 (NT)	NR
	96-h	Germling Length (μm)	65.91 (NT)	NR
		Overall (Ge or G)	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	96.2 (NT)	NR
	96-h	Germling Cell Number	10.40 (NT)	NR
	96-h	Germling Length (μm)	70.47 (NT)	NR
		Overall (Ge or G)	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	96.4 (NT)	NR
	96-h	Germling Cell Number	7.70 (NT)	NR
	96-h	Germling Length (μm)	64.59 (NT)	NR
		Overall (Ge or G)	NT	NR
<i>Benthic Invertebrate Community</i>				
<i>Ampelisca abdita</i>	10-d	Survival (%)	77 (NT)	77 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	100 (NT)	93 (NT)
	10-d	Growth (mm)	2.75 (NT)	2.77 (NT)
		Overall (S or G)	NT	NT

Table B7-16. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Choupique.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00SN2-ST014- NSD-010	00SN2-ST015- NSD-010
Benthic Invertebrate Community (cont.)				
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	98 (NT)	100 (NT)
	28-d	Growth (mm)	4.11 (NT)	4.27 (NT)
		Overall (S or G)	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	90.6 (NT)	NR
	48-h	Development (%NP)	18.8 (NT)	NR
		Overall (F or D)	NT	NR
	30-m	Fertilization (%EF)	94.4 (NT)	NR
	48-h	Development (%NP)	84.8 (NT)	NR
		Overall (F or D)	NT	NR
	30-m	Fertilization (%EF)	95 (NT)	NR
	48-h	Development (%NP)	82.6 (NT)	NR
		Overall (F or D)	NT	NR
<i>Community Structure</i>	LT	Normalized Index	0.61	0.475
	LT	Pollution Indicator Species (#/35.4 cm ²)	24.2	21.6
	LT	Pollution Sensitive Species (#/35.4 cm ²)	0.2	0
	LT	Richness (# species/35.4 cm ²)	8	11
	LT	Total Abundance (#/35.4 cm ²)	24.6	22.4
		Overall	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	NR	NR

Table B7-16. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Choupique.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	00SN2-ST014- NSD-010	00SN2-ST015- NSD-010
Fish Community				
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	0 (NT)	NR
	48-h	Survival (%)	0 (NT)	NR
		Overall (H or S)	NT	NR
	24-h	Hatch/Survival (%)	20 (NT)	NR
	48-h	Survival (%)	12 (NT)	NR
		Overall (H or S)	NT	NR
	24-h	Hatch/Survival (%)	92 (NT)	NR
	48-h	Survival (%)	62 (NT)	NR
		Overall (H or S)	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-17. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Grand Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST008- NSD-010	00SN2-ST009- NSD-010	00SN2-ST038- NSD-010
<i>Microbial Community</i>						
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	23 (NT)	4.7 (NT)	8.0 (NT)
<i>Aquatic Plant Community</i>						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	89 (NT)	NR	92 (NT)
	96-h	Germling Cell Number	100% PW	7.42 (NT)	NR	8.34 (NT)
	96-h	Germling Length (μm)	100% PW	56.38 (NT)	NR	64.69 (NT)
		Overall (Ge or G)	100% PW	NT	NR	NT
	96-h	Germination (%)	50% PW	92.4 (NT)	NR	95.8 (NT)
	96-h	Germling Cell Number	50% PW	9.38 (NT)	NR	8.06 (NT)
	96-h	Germling Length (μm)	50% PW	67.13 (NT)	NR	68.45 (NT)
		Overall (Ge or G)	50% PW	NT	NR	NT
	96-h	Germination (%)	25% PW	93.2 (NT)	NR	94 (NT)
	96-h	Germling Cell Number	25% PW	7.92 (NT)	NR	6.70 (NT)
	96-h	Germling Length (μm)	25% PW	69.46 (NT)	NR	63.88 (NT)
		Overall (Ge or G)	25% PW	NT	NR	NT
<i>Benthic Invertebrate Community</i>						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	76 (NT)	80 (NT)	82 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	85 (NT)	90 (NT)	90 (NT)
	10-d	Growth (mm)	WS	2.75 (NT)	2.25 (T)	2.58 (NT)
		Overall (S or G)	WS	NT	T	NT

Table B7-17. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Grand Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST008- NSD-010	00SN2-ST009- NSD-010	00SN2-ST038- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	90 (NT)	90 (NT)	88 (NT)
	28-d	Growth (mm)	WS	3.02 (T)	3.81 (NT)	3.30 (NT)
		Overall (S or G)	WS	T	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	58.6 (NT)	NR	92.2 (NT)
	48-h	Development (%NP)	100% PW	0.0 (NT)	NR	0.0 (NT)
		Overall (F or D)	100% PW	NT	NR	NT
	30-m	Fertilization (%EF)	50% PW	82.6 (NT)	NR	92.4 (NT)
	48-h	Development (%NP)	50% PW	2.2 (NT)	NR	4.8 (NT)
		Overall (F or D)	50% PW	NT	NR	NT
<i>Nereis virens</i>	30-m	Fertilization (%EF)	25% PW	96.6 (NT)	NR	95.4 (NT)
	48-h	Development (%NP)	25% PW	84.6 (NT)	NR	87.4 (NT)
		Overall (F or D)	25% PW	NT	NR	NT
<i>Community Structure</i>	LT	Normalized Index	WS	0.248	0.343	0.248
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	0.8	2	0.2
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0	0
	LT	Richness (# species/35.4 cm ²)	WS	1	4	1
	LT	Total Abundance (#/35.4 cm ²)	WS	0.8	2	0.2
		Overall	WS	I	I	I
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR

Table B7-17. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Grand Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST008- NSD-010	00SN2-ST009- NSD-010	00SN2-ST038- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	100% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	100% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	50% PW	0 (NT)	NR	0 (NT)
	48-h	Survival (%)	50% PW	0 (NT)	NR	0 (NT)
		Overall (H or S)	50% PW	NT	NR	NT
	24-h	Hatch/Survival (%)	25% PW	68 (NT)	NR	4 (NT)
	48-h	Survival (%)	25% PW	50 (NT)	NR	0 (T)
		Overall (H or S)	25% PW	NT	NR	T

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-18. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Bois Connine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST006-NSD-010	00SN2-ST035-NSD-010
<i>Microbial Community</i>					
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	12 (NT)	14 (NT)
<i>Aquatic Plant Community</i>					
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	86.6 (NT)	NR
	96-h	Germling Cell Number	100% PW	4.94 (NT)	NR
	96-h	Germling Length (μm)	100% PW	44.92 (NT)	NR
		Overall (Ge or G)	100% PW	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	92.8 (NT)	NR
	96-h	Germling Cell Number	50% PW	4.74 (NT)	NR
	96-h	Germling Length (μm)	50% PW	47.25 (NT)	NR
		Overall (Ge or G)	50% PW	NT	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	93 (NT)	NR
	96-h	Germling Cell Number	25% PW	5.22 (NT)	NR
	96-h	Germling Length (μm)	25% PW	50.40 (NT)	NR
		Overall (Ge or G)	25% PW	NT	NR
<i>Benthic Invertebrate Community</i>					
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	75 (NT)	82 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	98 (NT)	95 (NT)
	10-d	Growth (mm)	WS	2.33 (NT)	3.17 (NT)
		Overall (S or G)	WS	NT	NT

Table B7-18. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Bois Connine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST006-NSD-010	00SN2-ST035-NSD-010
Benthic Invertebrate Community (cont.)					
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	90 (NT)	98 (NT)
	28-d	Growth (mm)	WS	3.43 (NT)	3.75 (NT)
		Overall (S or G)	WS	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	36 (NT)	NR
	48-h	Development (%NP)	100% PW	0.0 (NT)	NR
		Overall (F or D)	100% PW	NT	NR
	30-m	Fertilization (%EF)	50% PW	90.2 (NT)	NR
	48-h	Development (%NP)	50% PW	83.6 (NT)	NR
		Overall (F or D)	50% PW	NT	NR
	30-m	Fertilization (%EF)	25% PW	93.6 (NT)	NR
	48-h	Development (%NP)	25% PW	83.8 (NT)	NR
		Overall (F or D)	25% PW	NT	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.245	0.52
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	0.4	3.6
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0	0.2
	LT	Richness (# species/35.4 cm ²)	WS	1	4
	LT	Total Abundance (#/35.4 cm ²)	WS	0.4	3.8
		Overall	WS	I	NI
<i>Nereis virens</i>	28-d	Survival (%)	WS	90 (T)	NR

Table B7-18. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Bayou Bois Connine.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST006-NSD-010	00SN2-ST035-NSD-010
Fish Community					
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	14 (NT)	NR
	48-h	Survival (%)	100% PW	2 (NT)	NR
		Overall (H or S)	100% PW	NT	NR
	24-h	Hatch/Survival (%)	50% PW	32 (NT)	NR
	48-h	Survival (%)	50% PW	18 (NT)	NR
		Overall (H or S)	50% PW	NT	NR
	24-h	Hatch/Survival (%)	25% PW	92 (NT)	NR
	48-h	Survival (%)	25% PW	76 (NT)	NR
		Overall (H or S)	25% PW	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-19. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Johnson Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST003- NSD-010	00SN2-ST004- NSD-010	00SN2-ST005- NSD-010
<i>Microbial Community</i>						
<i>Vibrio fisheri</i> (Microtox™)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	9.7 (NT)	3.3 (NT)	3.8 (NT)
<i>Aquatic Plant Community</i>						
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	NR	72.4 (NT)	NR
	96-h	Germling Cell Number	100% PW	NR	1.54 (NT)	NR
	96-h	Germling Length (μm)	100% PW	NR	14.50 (T)	NR
		Overall (Ge or G)	100% PW	NR	T	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	NR	92.2 (NT)	NR
	96-h	Germling Cell Number	50% PW	NR	1.74 (NT)	NR
	96-h	Germling Length (μm)	50% PW	NR	21.50 (T)	NR
		Overall (Ge or G)	50% PW	NR	T	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	NR	96 (NT)	NR
	96-h	Germling Cell Number	25% PW	NR	2.78 (NT)	NR
	96-h	Germling Length (μm)	25% PW	NR	34.48 (NT)	NR
		Overall (Ge or G)	25% PW	NR	NT	NR
<i>Benthic Invertebrate Community</i>						
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	79 (NT)	85 (NT)	83 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	98 (NT)	100 (NT)	93 (NT)
	10-d	Growth (mm)	WS	2.87 (NT)	2.56 (NT)	2.56 (NT)
		Overall (S or G)	WS	NT	NT	NT

Table B7-19. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Johnson Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST003- NSD-010	00SN2-ST004- NSD-010	00SN2-ST005- NSD-010
Benthic Invertebrate Community (cont.)						
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	95 (NT)	97 (NT)	100 (NT)
	28-d	Growth (mm)	WS	3.67 (NT)	3.62 (NT)	3.94 (NT)
		Overall (S or G)	WS	NT	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	NR	96 (NT)	NR
	48-h	Development (%NP)	100% PW	NR	81.6 (NT)	NR
		Overall (F or D)	100% PW	NR	NT	NR
	30-m	Fertilization (%EF)	50% PW	NR	95 (NT)	NR
	48-h	Development (%NP)	50% PW	NR	82.0 (NT)	NR
		Overall (F or D)	50% PW	NR	NT	NR
	30-m	Fertilization (%EF)	25% PW	NR	96.8 (NT)	NR
	48-h	Development (%NP)	25% PW	NR	84.6 (NT)	NR
		Overall (F or D)	25% PW	NR	NT	NR
<i>Community Structure</i>	LT	Normalized Index	WS	0.728	0.72	0.72
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	28.4	6.8	14
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	1.8	1.6	1.8
	LT	Richness (# species/35.4 cm ²)	WS	16	13	16
	LT	Total Abundance (#/35.4 cm ²)	WS	30.6	9.2	16.6
		Overall	WS	NI	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR

Table B7-19. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Johnson Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST003- NSD-010	00SN2-ST004- NSD-010	00SN2-ST005- NSD-010
Fish Community						
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	NR	0 (NT)	NR
	48-h	Survival (%)	100% PW	NR	0 (NT)	NR
		Overall (H or S)	100% PW	NR	NT	NR
	24-h	Hatch/Survival (%)	50% PW	NR	12 (NT)	NR
	48-h	Survival (%)	50% PW	NR	6 (NT)	NR
		Overall (H or S)	50% PW	NR	NT	NR
	24-h	Hatch/Survival (%)	25% PW	NR	60 (NT)	NR
	48-h	Survival (%)	25% PW	NR	42 (NT)	NR
		Overall (H or S)	25% PW	NR	NT	NR

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-20. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Willow Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST001-NSD-010	00SN2-ST002-NSD-010
<i>Microbial Community</i>					
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	22 (NT)	23 (NT)
<i>Aquatic Plant Community</i>					
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	NR	93.6 (NT)
	96-h	Germling Cell Number	100% PW	NR	6.22 (NT)
	96-h	Germling Length (μm)	100% PW	NR	57.70 (NT)
		Overall (Ge or G)	100% PW	NR	NT
	96-h	Germination (%)	50% PW	NR	93.6 (NT)
	96-h	Germling Cell Number	50% PW	NR	5.86 (NT)
	96-h	Germling Length (μm)	50% PW	NR	55.26 (NT)
		Overall (Ge or G)	50% PW	NR	NT
	96-h	Germination (%)	25% PW	NR	94.4 (NT)
	96-h	Germling Cell Number	25% PW	NR	5.72 (NT)
	96-h	Germling Length (μm)	25% PW	NR	52.12 (NT)
		Overall (Ge or G)	25% PW	NR	NT
<i>Benthic Invertebrate Community</i>					
<i>Ampelisca abdita</i>	10-d	Survival (%)	WS	67 (NT)	66 (NT)
<i>Hyalella azteca</i>	10-d	Survival (%)	WS	78 (NT)	80 (NT)
	10-d	Growth (mm)	WS	2.85 (NT)	2.61 (NT)
		Overall (S or G)	WS	NT	NT

Table B7-20. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Willow Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST001-NSD-010	00SN2-ST002-NSD-010
Benthic Invertebrate Community (cont.)					
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	88 (NT)	88 (NT)
	28-d	Growth (mm)	WS	4.22 (NT)	3.79 (NT)
		Overall (S or G)	WS	NT	NT
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	NR	83.8 (NT)
	48-h	Development (%NP)	100% PW	NR	0.0 (NT)
		Overall (F or D)	100% PW	NR	NT
	30-m	Fertilization (%EF)	50% PW	NR	94 (NT)
	48-h	Development (%NP)	50% PW	NR	84.8 (NT)
		Overall (F or D)	50% PW	NR	NT
	30-m	Fertilization (%EF)	25% PW	NR	94.6 (NT)
	48-h	Development (%NP)	25% PW	NR	84.6 (NT)
		Overall (F or D)	25% PW	NR	NT
<i>Community Structure</i>	LT	Normalized Index	WS	0.663	0.48
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	3.4	8.2
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	0.4	0
	LT	Richness (# species/35.4 cm ²)	WS	8	11
	LT	Total Abundance (#/35.4 cm ²)	WS	5.2	10.2
		Overall	WS	NI	NI
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR

Table B7-20. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Willow Bayou.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00SN2-ST001-NSD-010	00SN2-ST002-NSD-010
Fish Community					
<i>Sciaenops ocellatus</i>	24-h	Hatch/Survival (%)	100% PW	NR	0 (NT)
	48-h	Survival (%)	100% PW	NR	0 (NT)
		Overall (H or S)	100% PW	NR	NT
	24-h	Hatch/Survival (%)	50% PW	NR	74 (NT)
	48-h	Survival (%)	50% PW	NR	52 (NT)
		Overall (H or S)	50% PW	NR	NT
	24-h	Hatch/Survival (%)	25% PW	NR	92 (NT)
	48-h	Survival (%)	25% PW	NR	80 (NT)
		Overall (H or S)	25% PW	NR	NT

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.

Table B7-21. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Controls.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00CSD01	00CSD02	CERC POND	CONTROL	CONTROL_N
<i>Microbial Community</i>								
<i>Vibrio fisheri</i> (Microtox TM)	25-m	Bioluminescence (EC ₅₀ ; % sediment WW/mL)	SPT	NR	NR	3.7 (NT)	3.0 (NT)	NR
<i>Aquatic Plant Community</i>								
<i>Ulva fasciata</i>	96-h	Germination (%)	100% PW	NR	93.4 (NT)	NR	NR	NR
	96-h	Germling Cell Number	100% PW	NR	2.58 (NT)	NR	NR	NR
	96-h	Germling Length (μm)	100% PW	NR	25.91 (NT)	NR	NR	NR
		Overall (Ge or G)	100% PW	NR	NT	NR	NR	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	50% PW	NR	95.4 (NT)	NR	NR	NR
	96-h	Germling Cell Number	50% PW	NR	3.20 (NT)	NR	NR	NR
	96-h	Germling Length (μm)	50% PW	NR	33.87 (NT)	NR	NR	NR
		Overall (Ge or G)	50% PW	NR	NT	NR	NR	NR
<i>Ulva fasciata</i>	96-h	Germination (%)	25% PW	NR	93.2 (NT)	NR	NR	NR
	96-h	Germling Cell Number	25% PW	NR	3.42 (NT)	NR	NR	NR
	96-h	Germling Length (μm)	25% PW	NR	39.44 (NT)	NR	NR	NR
		Overall (Ge or G)	25% PW	NR	NT	NR	NR	NR
<i>Benthic Invertebrate Community</i>								
<i>Ampelisca abdita</i> ¹	10-d	Survival (%)	WS	90-96 (NT)	NR	NR	NR	NR
<i>Hyalella azteca</i> ²	10-d	Survival (%)	WS	NR	95-97 (NT)	NR	NR	NR
	10-d	Growth (mm)	WS	NR	2.32-2.65 (NT)	NR	NR	NR
		Overall (S or G)	WS	NR	NT	NR	NR	NR

Table B7-21. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Controls.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00CSD01	00CSD02	CERC POND	CONTROL	CONTROL_N
Benthic Invertebrate Community (cont.)								
<i>Hyalella azteca</i> (cont.)	28-d	Survival (%)	WS	NR	92-93 (NT)	NR	NR	NR
	28-d	Growth (mm)	WS	NR	3.63-3.66 (NT)	NR	NR	NR
		Overall (S or G)	WS	NR	NT	NR	NR	NR
<i>Arbacia punctulata</i>	30-m	Fertilization (%EF)	100% PW	NR	97.6 (NT)	NR	NR	NR
	48-h	Development (%NP)	100% PW	NR	85.2-93.4 (NT)	NR	NR	NR
		Overall (F or D)	100% PW	NR	NT	NR	NR	NR
	30-m	Fertilization (%EF)	50% PW	NR	96.9 (NT)	NR	NR	NR
	48-h	Development (%NP)	50% PW	NR	85.1-92.2 (NT)	NR	NR	NR
		Overall (F or D)	50% PW	NR	NT	NR	NR	NR
	30-m	Fertilization (%EF)	25% PW	NR	97 (NT)	NR	NR	NR
	48-h	Development (%NP)	25% PW	NR	85.3-93.1 (NT)	NR	NR	NR
		Overall (F or D)	25% PW	NR	NT	NR	NR	NR
<i>Community Structure</i>	LT	Normalized Index	WS	NR	NR	NR	NR	NR
	LT	Pollution Indicator Species (#/35.4 cm ²)	WS	NR	NR	NR	NR	NR
	LT	Pollution Sensitive Species (#/35.4 cm ²)	WS	NR	NR	NR	NR	NR
	LT	Richness (# species/35.4 cm ²)	WS	NR	NR	NR	NR	NR
	LT	Total Abundance (#/35.4 cm ²)	WS	NR	NR	NR	NR	NR
		Overall	WS	NR	NR	NR	NR	NR
<i>Nereis virens</i>	28-d	Survival (%)	WS	NR	NR	NR	NR	99 (NT)

Table B7-21. Summary of the data on the biological effects associated with exposure to whole sediments and pore water from Controls.

Receptor Group/ Species Tested	Duration of Exposure	Endpoint Measured	Medium Tested	00CSD01	00CSD02	CERC POND	CONTROL	CONTROL_N
Fish Community								
<i>Sciaenops ocellatus</i> ¹	24-h	Hatch/Survival (%)	100% PW	NR	80-92 (NT)	NR	NR	NR
	48-h	Survival (%)	100% PW	NR	72-88 (NT)	NR	NR	NR
		Overall (H or S)	100% PW	NR	NT	NR	NR	NR
	24-h	Hatch/Survival (%)	50% PW	NR	84-94 (NT)	NR	NR	NR
	48-h	Survival (%)	50% PW	NR	68-92 (NT)	NR	NR	NR
		Overall (H or S)	50% PW	NR	NT	NR	NR	NR
	24-h	Hatch/Survival (%)	25% PW	NR	84-92 (NT)	NR	NR	NR
	48-h	Survival (%)	25% PW	NR	74-90 (NT)	NR	NR	NR
		Overall (H or S)	25% PW	NR	NT	NR	NR	NR

¹Control was run in four series.

²Control was run in two series.

Duration of exposure: m = minute; h = hour; d = day; LT = long term.

Endpoint measured: F or D = fertilization or development; Ge or G = germination or growth; H or S = hatching success or survival; S or G = survival or growth; %EF = percent eggs fertilized;

%NP = percent normal plutei; WW = wet weight; EC₅₀ = median effective concentration.

Medium tested: SPT = solid phase test; PW = pore water; WS = whole sediment.

T = Toxic; NT = Not Toxic; I = Impacted; NI = Not Impacted; NR = Not Reported.